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The Development of the UAE Federal Higher Education System Main Characteristics and Influences

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The Development of the UAE Federal Higher Education System: Main Characteristics and Influences

Maytha AL-Ali

A thesis submitted for the degree of Doctor of Business Administration

University of Bath
School of Management
June 2014

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Abstract

This study examines the impact of globalization on the newly-adopted, American-based federal higher education model of the United Arab Emirates (UAE) through the lenses of World Polity theory. The higher education environment has been transformed by shared global ideas and policy models. In many developing countries, higher education is perceived to be central to socio-political and economic development. The federal higher education system in the (UAE) represented by the three federal universities - United Arab Emirates University (UAEU), Higher Colleges of Technology (HCT), and Zayed University (ZU) - is tasked not only with educating UAE nationals, but also with the “Emiritization” or nationalization of the labor market, which is highly dependent on foreign expatriates. The UAE has made a transformational shift in its federal higher education model by replacing its Arabic-based model with English-based instruction and American curricula. Some UAE public universities sought and were granted accreditation by US regional accrediting bodies. This study was focused on the three UAE federal universities to identify the main characteristics of the newly adopted model and the extent to which it draws on western and indigenous models and principles, and to validate the global reach of higher education ideas and values to the environment other than those where they originated from. The research investigates various issues related to higher education development including the socio-cultural and organizational aspects of it. The research questions are not only significant to the UAE but they also address key issues that are especially sensitive yet similarly applicable across the Gulf region and similar developing countries. The findings reveal that in the UAE the profound cultural and religious differences reflecting local and national path dependencies are undercut by dominant western models of higher education. While the US and the UAE differ in their values, culture, level of development, several aspects of the higher education model look quite similar. These similar aspects were not mandated, but communicated, and governed by the culture of a global higher education exchange. The world polity of higher education has played a key role in sustaining and promulgating a common culture to nations and communities around the world.

Chapter One: Introduction

1.1. Background

Higher education is more global than ever before. The higher education environment around the world has been transformed in the past two decades by global ideas and policy models, people movements, instantaneous communications, emerging markets, and foreign education (Huang, 2007). Higher education systems in many countries have expanded dramatically to meet growing economic and social demands. Educational policies, structures and practices have been significantly impacted by globalization. Some of these changes have been driven by economic forces, while others have been driven by political, technological, and cultural forces. Globalization's impact on education has caused a rethinking of many areas in education, including its purpose, structure, pedagogy, content, instructional modality, and outcomes assessment (Carnoy, 1999; McGinn, 1996).

In developing countries higher education has been the fastest growing sector of education in the past twenty years (Tunnermann, 1996). Higher education in developing countries is perceived to be central to socio-political and economic development. It can potentially transform countries from 'materially-poor' into 'information-rich' nations with the ability to utilize knowledge for economic development (Naidoo, 2007). This increase in importance can be seen by the increase in the number of higher education institutions in developing countries. For instance, while post-independent India had only 27 universities, it now has more than 200 (T.K.Gill, 2000). Similarly, the number of higher education institutions in the United Arab Emirates (UAE) has risen from one university in 1976 to 11 universities and more than 18 colleges today (UAE interact, 2010).

The UAE was formed in 1971 after seven emirates (states) ruled by sheiks from different individual tribal formed to create a union within which they could preserve a large degree of local autonomy (Taryam, 1987). The official language of the UAE is Arabic. The current estimated population of the UAE is about 4 million, 70 per cent -80 per cent of which is comprised of foreign expatriates. The UAE's economy is ranked first in the Gulf region and sixteenth in the world, well ahead of countries like Hong Kong, and comparable to countries like Canada, Australia and Germany.

Prior to the discovery of oil in the 1950s, the UAE did not have a proper educational system or the infrastructure to develop one (Al-Dahri, 2002). Since the federation of the UAE in 1971, the federal higher education system in the UAE has been through rapid development and progress. In 1977, the UAE University was established to become the first university in the UAE, with the help of Egypt for educational advice and personnel (Findlow, 2005). For the first time, all UAE nationals received access to free public higher education (Gaad, 2001). In the 1980s and 1990s, American consultants played a significant role in reshaping higher education in the UAE. Institutions such as the Higher Colleges of Technology (HCT) and Zayed University (ZU) were specifically established to meet the highest standards required for a federal higher education institution. The growing demand for internationally recognized undergraduate, post-graduate and career advancement courses and programs has led to a rapid qualitative and quantitative expansion of the higher education sector across the UAE (Joseph, et al., 2006; Bollag, 2005). In the recent few years, a number of foreign universities have started branch campuses in the UAE, including Middlesex University of the UK, University of Wollongong of Australia, College of North Atlantic of Canada, and Carnegie Mellon University of Pennsylvania, USA (Joseph, et al., 2006). Many UAE universities have set up high profile partnerships incorporating sponsorship and actual involvement with the curriculum with these overseas higher education institutions. Some UAE universities including Zayed University have been seeking accreditation from US regional accrediting bodies (Findlow, 2005). Global higher education is, therefore, not bound by either language or boundaries.

It is no secret that the structure and direction of federal higher education in the UAE has a significant bearing on the future of the nation. It is also evident that the world polity of higher education dominated by the United States appears to play a key role in sustaining and promulgating a common culture in the UAE higher education system. However, the federal higher education system in the UAE, represented by the three federal universities - United Arab Emirates (UAEU), Higher Colleges of Technology (HCT), and Zayed University (ZU) - is tasked not only with providing free education to UAE nationals, but also with the “Emiritization” or nationalization of the labor market, which is highly dependent on foreign expatriates (80%). Emiritization is a national security priority. Hence, it is crucial that the characteristics of the newly adopted federal higher education model in the UAE and the extent to which it draws on western and indigenous models and principles be understood. In addition, it is equally important to understand the applicability of the Western-developed ideas, values and policy models of higher education in foreign environments that embrace different cultures, languages and beliefs.

This study provides an opportunity to identify and assess the impact of globalization on education in one unique developing country, the UAE. The UAE is a country of contrasts that reflects many of the conundrums facing other developing countries but unlike other developing countries, the UAE is rich-country with a very small population. The UAE is heavily dependent on expatriates and is considered a cultural melting pot by many.

This study focused on the three UAE federal universities to identify the main characteristics of the newly adopted model and the extent to which it draws on western and indigenous models and principles. The research investigates various issues related to higher education development, including the socio-cultural and organizational aspects of it. The research questions are not only significant to the UAE but they also address key issues that are especially sensitive yet similarly applicable across the Gulf region and similar developing countries.

1.2. Aim and Objective

The focus of this study is the impact of globalization on the newly-adopted federal higher education model in the UAE through the lenses of World Polity theory. The UAE commitment to higher education has shifted from mainly providing access to higher education to a complete overhaul that would help UAE nationals develop the competencies that would facilitate greater access to the global economy and consequently enhance national development, income per capita, and promote the knowledge economy.

The particular purpose of the study is to examine how globalization has influenced the federal higher education transformation in the UAE. The study explores the origins and implementation of the reformed federal higher education system, and attempts to discern how and why these reforms have been developed and how these relate to global trends.

Higher education in the UAE is witnessing a process of deep institutional change that involves policy reform and the deinstitutionalization of its rooted policy and values frameworks that was related to the Egyptian model that was in place since the federation of the UAE. In parallel, the institutionalization of new policies, values, and frameworks that are more closely related to the North American higher education model are now being adopted. In practice, policy reform is difficult to implement, and in the past have yielded mixed results, especially in terms of the level of quality, and the level of participation in education. In general, policy reform creates a complicated problem for most governments, because in the one end, it requires the state to manage and retain control of educational policy and standards of quality that is essential for the state legitimacy, while on the other end surrender control of the implementation of its policies to lower levels of government where the state has less control. This creates a conflict, especially in developing countries where the local requirements may not necessarily agree with what is globally valued and dominant, especially in developed countries. Global higher education offers developing countries many advantages but also present certain dangers (Naidoo, 2007).

These types of reform processes entail strong resistances, conflicts and tensions in many areas including autonomy, innovation, and governance. They also entail efforts to reconcile, adapt, and assemble the new with the old. These include the older national features of the higher education system with the new globalizing pressures as well as older, more historical structural and cultural features of institutions with the new imperatives and demands. To appreciate this possible tension between a top-down centralized approach of governance and the need to innovate and reform, one may ask the question asked by a highly regarded critical middle eastern scholar : “To what extent is the UAE prepared to absorb, and accept the results of, the world-class-quality research?” (Mazzawi, 2005: p 3). Although research on some academic disciplines can be produced under authoritarian rule, other academic disciplines including social sciences, humanities, and liberal arts do not develop easily in highly conservative and authoritarian cultures.

In fact, very little has changed in scholarly research in the entire Gulf region on social, religious, cultural, and ethical issues (Morsi, 1990). The newly adopted model of higher education does not contain an independent faculty senate and is not free of intrusive political funders (Romani, 2009). This centralized, top-down management approach is not only found in higher education governance, but also extends to several other aspects of higher education, including learning. It can be easily seen in the production and diffusion of textbooks, and the implementation of rigid curriculum centered on memorization and dictation, which is completely at the opposite end of the North American system being adopted, which is founded on teaching students problem solving, cooperation and critical thinking skills that are needed to build democracy, innovation, and citizenship (Akkari, 2004). This research therefore assesses the extent to which UAE universities have acquired more autonomy in the newly adopted model of higher education in order to alleviate these tensions and become more innovative.

In general, this research seeks to understand the relationship between the culture of three Emirati Institutions of Higher Education in relation to Emirati and Western, particularly American culture and practices. The research uses world polity theory to seek to illuminate these relationships and uses a mixed method approach to the fieldwork in elucidating these relationships.

Specifically, the research aims to explore the emergence and development of a new federal higher education sector in the UAE represented by the case of the three federal universities - UAEU, HCT and ZU, and seeks to identify the main characteristics of the new higher education profile and the extent to which it draws on western and indigenous models and principles. It also examines the utility of world polity theory in this national and temporal context. The following research questions have been identified to guide the investigation into the identified phenomenon:

1. What are the main characteristics of the new federal UAE higher education model, and what is the rationale behind its emergence?
2. Using the lenses of World Polity theory, to what degree have the UAE federal higher education institutions drawn on the globally dominant American model, particularly in relation to staffing, student constituency, funding, curriculum development, pedagogical strategies, governance and policies?

1.3. Significance of the Study

This study contributes to conceptualisations regarding how globalization affects higher education in developing countries. The study may have practical significance for education policy and practice in the UAE and in other similarly positioned countries, especially those of the GCC. It may increase awareness and understanding of how globalization affects the context and challenges of higher education reform in developing countries seeking to position themselves in an advantageous manner. Globalization has been associated with far reaching effects on higher education Welch (2001). Globalization is increasingly being associated with changes in critical aspects of higher education including areas of provision, access and funding. This study takes the stance that, there has been no consensus on what globalization is and how it affects higher education (Deem, 2001; Fitzsimons, 2000; Forest, 2004; Mok, 2000).

World polity claims that modern states are shaped by a large-, embedded network of international non-government organizations, however, the structure has rarely been examined (Beckfield, 2003). In fact, according to criticism by Dale (2000: p 427) “Globalization” is variously taken as representing an ineluctable progress toward cultural homogeneity, as a set of forces that are making nation-states obsolete and that may result in something like a world polity” This study contributes to the field of globalization studies by providing empirical data on the diffusion and adaptation of a global model of higher education, namely the American model into the organizational structure and practices of federal universities in the United Arab Emirates. This study is also the first to use World Polity as an analytical framework within this context in the region. This study examines a unique attempt by the UAE to “glocalize” the American higher education model in federal universities in the UAE. This study is important as it will contribute to our general understanding of the relationship between globalization and higher education at the international level, especially the utility of world polity in the case of the UAE where nationalization of the labor force and establishing a national identity for UAE nationals are also strategic objectives and a cause of national security concern.

The study has implications for future policy at the regional, national and perhaps even at the institutional level. Very few studies have been conducted which have encompassed an in-depth analysis of recent policy developments concerning the federal universities in the UAE, and the influence of global higher education on federal higher education models, especially in more challenging contexts and environments than the Western environments from where they originated from. This research addresses the identified gaps and contributes to the limited literature in the body of knowledge by conducting an exploratory study in the federal higher education institutions of a developing country, namely the UAE. The study investigates various issues related to higher education development, including the socio-cultural and organizational aspects of it. It provides detailed analysis of the UAE institutions’ practices. The research questions addressed in this study are not only significant to the UAE, they also addresses some key issues that are especially sensitive yet similarly applicable to the context and educational needs of the institutions across the Gulf region and similar developing countries.

1.4. Theoretical Framework and Research Design

This thesis was inspired by a number of gaps in the literature on the globalization of higher education. The first gap is the lack of conceptualizations and theoretical consensus in the literature (Deem, 2001; Fitzsimons, 2000; Forest, 2002; Yang, 2003a; Jordan & Yeomans, 2003; Edwards, Crosling, Petrovic-Lazarovic & O'Neill, 2003; McBurn, 2001; Mok, 2000). The second gap is the lack of empirical evidence presented on theories of higher education globalization including the conceptualizing end of it (Enders, 2004; Yang, 2003b; Vidovich, 2002). The third gap is the need for empirical evidence in order to advance theories and conceptualizations of globalization (Yang, 2002; Enders, 2004). This thesis attempts to address the third gap by attempting to provide an empirical account of higher education globalization in the UAE. The researcher hopes that by attempting to address the third gap, she can potentially contribute to rectifying the first two gaps as well. The case study draws on globalization theories, more specifically, World Polity to frame the inquiry into globalization and its impact on higher education transformation in the UAE. This framework highlights the contextual nature of higher education, the importance of studying social institutions and their transformation, and the relationships inherent in education policy and practice. It also enabled the researcher to explore how global mechanisms and the integration of a global culture have influenced federal higher education policy and practice in the UAE, viewed through the world polity theoretical framework, tensions, and conflicts in policy and practice different aspects of education to be better understood (Yoder, 2006). During my research and review of the literature, I was looking for a global-based theory or analytical approach that could provide an explanation for the enactment of similar, global patterns of higher education appearing differently at different nations and different universities (see section 2.5 for a summary of some of the theories and frameworks I came across). Although, I found theories that discuss the knowledge transfer and the influence of developed countries over developing countries, many of these globalization theories did not consider the development of global patterns of higher education, nor do they provide an explanation for why universities in the UAE and developing countries are taking on similar patterns of university practice (Yoder, 2006).

One theory that stood out is World Polity, for its conceptualization of a cultural frame larger than nation-states. Unlike other theories emphasizing individual agency and the actions of nations as the primary unit of study, the World Polity paradigm highlights the primacy of institutions. By bringing institutions- comprised of both state and non-state actors with specified behavioral expectations- to the forefront, the World Polity paradigm opens the door for the study of institutional isomorphism within and across international borders over time” (Overton, 2012: 3). World Polity theories thus provide a cognitive context in which both nations and international organizations exist. This cognitive context offers a unique lens through which one may better understand the function of these entities within the international system. (Beckfield 2003; Beckfield 2008; Cao 2009; Hughes, et al. 2009; Kelley 2004; Schimmelfennig 2005). (Overton, 2012). World polity draws attention to institutional factors on a global dimension. The world polity research is seen as a macro-sociological approach that take into account all encompassing cultural frames of reference in which social reality is produced and perceived. In numerous empirical studies, researchers found substantial isomorphism across countries (Boli, et al, 1997, 172).

In the words of John W. Meyer, the world polity is understood “as a broad cultural order that has explicit origins in Western society.” (Meyer, 1987, 41). World Polity is based on a fundamental assumption that national societies are surrounded by transnational organizations, rooted into world culture and involved in a discourse, which exists under names of the ‘world polity’ (Thomas et. al 1987). According to Lencher (1997: 152-3), “World culture constitutes states as rationalized actors” “World culture exerts pressure toward isomorphism” and “nation-states adopt similar constitutional forms , public educational systems and so on. Lencher continues to explain World Polity by saying “International nongovernmental organizations represent, carry out, and elaborate global principles”. “They are built on world-cultural principles of universalism, individualism, rational voluntaristic authority, progress, and world citizenship” (Boli and Thomas 1997: 187). This may help to explain why an Arab country such as the UAE with its conservative culture and long-standing hierarchical, centralized structure is now embracing a foreign instruction language and hiring faculty with different culture and background to most students.

However, the core question here is to what extent is there a flawless, smooth transfer of the American higher education global model to the UAE (as World Polity theory suggests) particularly when one digs deeper and especially in the case of a developing countries, where the values, norms, and culture of society is significantly different from those of the West and especially when the focus is within .

An interpretive case study approach was employed in the three federal universities to investigate the research questions mentioned above. A qualitative research approach addresses the purpose of this study. Qualitative methodology encourages detailed description and fulfils the need to document the different circumstances surrounding the change of higher education policies and practices in the UAE. It also supports interpretive objectives such as understanding the impact of globalization and identifying the links between globalization and education reform (Wood, 2008). The research focused on the following nine main themes gathered from the literature:

- University vision, mission, and goals;
- University faculty profiles;
- University students' profiles;
- University administration and systems profiles;
- University funding forms;
- University curricula and teaching profiles;
- University research profile;
- University governance, regulations, by-laws, and policies;
- University cultural profile.

To ensure consistency and validity of findings, multiple sources of data were gathered through the use of four main instruments: interviews, questionnaire, documentation and observation. As stressed by Bonoma (1985), collecting different types of data by different methods from different sources produces a wider scope of coverage and results in a fuller picture of the phenomena under study than would have been achieved otherwise. Triangulation and pattern coding were used to analyze data.

Importantly, two phone interviews were conducted with Dr. John Boli, an erstwhile student of John Meyer, and one of the key figures in the realm of World Polity to discuss the application of world polity in the particular context of research. Total number of (18) extensive interviews took place with universities' senior managers and officers, including the president, vice president, and provost. Six interviews were conducted in each university. In addition to the interviews, 200 questionnaires were disseminated to faculty, students and administrators in all three campuses. (70) were distributed in Zayed University, 70 in UAEU, and 60 in HCT. Finally, more than 400 hours of observation and review of documentation were conducted as part of this study to assist with constructing the validity of the findings. Since the researcher is also a leader in one of the three case study institutions, the research instruments were carefully designed to try to minimize cognitive biases (Creswell, 1998).

1.5. Background and Contribution of the Researcher

The Researcher has over ten years of experience in the area of the management of higher education within different higher education institutions in the UAE. The researcher received her BS degree in general science from the United Arab Emirates University in 1996. In 2004, she received her Master of Business Administration from the American University of Sharjah.

The researcher's higher education experience began also with the United Arab Emirates University as a teaching assistant, and continued with Zayed University in Dubai as the Marketing and Activities coordinator between 2001 to today. Taking into consideration the young age of the UAE and Zayed University, the researcher took a leading role in the development and deployment of several projects for Zayed University and other educational institutes in the UAE, and is closely familiar with that environment.

1.6. Structure of the Thesis

This thesis is structured into eight chapters. In chapter one, the thesis is introduced. It provides the reader with a background on the thesis, aims and significance of the study, research questions, and background on the researcher.

Chapter two is concerned with higher education in developing countries and the application of world polity theory. The chapter provides the background to the literature review and theoretical framework of this thesis. The literature review covers an in-depth critical analysis of higher education in developing countries in the context of globalization.

Chapter three continues with the literature review related to higher education in the UAE. The chapter presents the development of higher Education in the UAE. It provides background commentary to this study, and establishes the cultural context essential for higher education in the UAE.

The fourth chapter is concerned with the study's research methods. The chapter includes a review of the principles of research, a description of the derivation of the research questions for the thesis, and the chosen methodology, including the methods and survey instruments developed to collect the necessary data. The chapter also reflects on methodological strengths and weaknesses, lessons learnt and how the methods evolved throughout the study.

Chapter five titled "The 3 Universities as national Case Study" provides background commentary to the study. It establishes the central characteristics of the three federal higher education institutions representing the current UAE federal higher education model.

Chapters six and seven are both concerned with the findings of the data collection instruments. Chapter six presents the case study data findings from the interviews conducted in all three federal higher education institutions in the UAE, described in Chapter 4, along with an analysis that addresses all research questions.

Chapter seven presents the case study data findings from the surveys, documentation, review and observations made in all three federal higher education institutions in the UAE, described in Chapter 4, along with an analysis that addresses all research questions.

Chapter eight draws together all of the elements from the preceding chapters through discussion to enable the research questions to be answered. The chapter presents the conclusions of the study, and some of the implications for practice that arise from the findings. It also includes a summary of the thesis, the contribution of the thesis to current research, limitations of the research, and suggestions for possible future research. The appendices for reference and copies of the survey instruments developed and used within the research methodology are also included.

In conclusion, this chapter provides an introduction to background information that is necessary to assist the reader in the grounding of this thesis. Moreover, it establishes the significance of the study, which encompasses an investigation into a rich educational environment within the unique setting of the UAE.

Furthermore, the purpose of the study is expressed, while the questions guiding it are presented. Overall, this chapter is intended to support Chapters 2 and 3 in developing a clearer understanding in the reader's mind of the broad issues and concerns that impact upon this research study.

Chapter Two: World Polity Theory and Higher Education in Developing Countries and the Middle East

2.1 Introduction

The aim of this chapter is to assist the reader to better understand the significance of the research questions of this study and the context of the environment within which the UAE federal higher education system operates. This chapter provides a description of the global higher education context, including its history, and the different globalization theories surrounding it.

Since the research questions of this study are concerned with the key characteristics of public higher education in the UAE, and the specifications of the higher education model in place, this chapter is designed to provide the reader with important information regarding the general characteristics and trends, challenges, and key models of higher education of western universities in general. It explains some of the influences that UAE public higher education system is under.

The literature review was conducted to explore the impacts of globalization on the federal higher education in model the UAE. The review drew upon theoretical traditions, publications and articles by experts and other research to build a logical framework for the proposed study and situate the study within a tradition of inquiry and a context of related studies. The literature review assisted in serving several objectives; including illuminate the research paradigm this study is founded up on; “identify related research and intellectual traditions; identify gaps in previous research; and, add further dimensions to the research questions to be investigated” (Marshall, et al, 1999: p 21).

2.2 Historical Development, Trends, and Challenges of Higher Education

References to universities date back to Salerno in the ninth century, and include institutions in Paris and Oxford established during the twelfth and thirteenth centuries (Lynton, et al., 1987). European universities especially in the UK, France, Germany, Switzerland and Austria played a major role in the development of higher education in the period between 1815 and 1914. Although World War II had a major impact in compromising the role of Europe as a leading global power and consequently affect the glory of the European liberal university, the second half of the twentieth century witnessed the emergence of a new type of democratic European university. It also witnessed the emergence of the American universities.

Although universities after World War II were defined according to their intellectual and academic focus, or according to their constituent focus, today's universities are defined by their mission and their contribution to their surrounding regions (Scott, 1984). Universities are expected to be a place of creating knowledge and addressing societal issues. They are also assumed to be the prime resource for societal intellectual development (Lynton, et al., 1987). An institution of higher education is “a community dedicated to the pursuit and dissemination of knowledge, to the study and clarification of values, and to the advancement of the society it serves” (Middle States Commission on Higher Education, 2002). Universities experienced many profound changes towards the end of the twentieth century rendering higher education to features such as pressure on funding, increasing external scrutiny, and erosion of traditional academic freedoms and independence (Taylor, 2002). There are two key factors that have been, and still are, transforming the structure and practices of higher education: the incorporation of new IT, and globalization represented in travel, international conferences, faculty exchange, and the recruitment and training of international students (Burbules, et al., 2000). The reach of a university is no longer measured by the physical space it occupies.

A typical university today may engage in many diverse business activities as part of its mission. In addition to teaching, many institutions conduct a wide range of

research activities, provide hospitality services such as dorms and dining areas, serve as Internet Service and Phone companies, engage in retail sales such as book stores and food concessions, manage financial accounts, and provide entertainment (EDUCASUE, 2003). Higher education is changing at a rapid rate. Distance learning systems today are among the most important applications of multimedia and communication technologies (Shih, 2001). The barriers of cost, physical location, merit-based exclusion, and culture displacement are also becoming more and more irrelevant. Higher education is becoming continuous and life-long (Langlois, 1998). Students are no longer in a passive position, teachers are no longer dominating the whole teaching process, and the knowledge in teaching materials is no longer the unique source of student's knowledge (Xing et al, 2005).

Higher education clients today are characteristically older, employed, attend part-time, and come from lower socio economic backgrounds (Davis, et al., 1995). Most students today have been exposed, in one way or another, to digital devices leading to the requirement of different teaching methods (Kelly, et al., 2006). Students use text editing, email boxes, Internet navigation, chat rooms, and video conferencing. Access to information such as literature, journals, course materials, and electronic libraries are now major components of any university information systems. Organization and management of instruction, such as student progress, registration, evaluation, and test assignment have also changed. In research, general tools such as electronic publishing are available to facilitate the mission of research. Access to large amounts of relevant information, digital libraries, and online-publications is another facet of the changing higher education scene (Langlois, 1998).

The educational arena is also expected to function in settings that integrate academic and experimental work and students' academic learning experience across disciplines and courses. Learning extends beyond the classroom limits to outside formal classes and peer to peer learning. The instructional role is also expected to change from a teaching role to a mentor, facilitator, leader, consultant, developer role (Lieberman, et al., 2003).

The role of institutions has changed from mandating classes and credit hours to developing measurements of knowledge and skills. Institutions now accept learning

experiences from other universities, corporate training, and work experience (Mendenhall, 2002).

Universities in developing countries have their own challenges. In addition to access, finance, and quality issues, higher education in developing countries suffers shockingly low enrolment levels, limited space, low budgetary levels, low numbers of trained faculty, virtually non-existent levels of research, poor quality of educational materials, and outdated programs (Daniel, 1997). The challenge of the global scene for a given university has several dimensions, including the challenge of the creation of knowledge facing global standards and the challenge of the education of graduates facing global competition in the labor market (Kuklinski, 2001).

2.3 Higher Education Models

Prior to 1960, universities and university-level specialized colleges were what constituted higher education by and large. Short-cycle programs oriented towards professions such as nursing or teaching were developed by independent universities and were not considered part of the higher education schema (Kyvik, 2004). After World War II, and as a response to the strong growth in student numbers in the 1960s, and the increasing need for skilled labor, the university system expanded considerably and in many countries. That expansion took many shapes, one of which was the establishment of the new, non-university higher education institutions. The establishment of these institutions was a direct consequence of the transition from elite to mass higher education, and the changes in the student population structure this represented (Trow, 1974). The purpose of these non-university institutions was to offer students a wide range of vocational education in order to qualify them for a specific occupation or to prepare them for a profession, consequently fulfilling specific needs of the local economy, and other aspects which were not traditionally part of the university's mission and, therefore, not adequately met by universities (Geiger, 1992).

This expansion took place via different forms, one of which was by the upgrading of existing post-secondary schools to colleges of higher education. A different form

took place in other countries where vocational education programs and professional schools were integrated within the framework of the traditional universities. Other countries with an already established non-university higher education sector changed the organization of the sector at different points in time (Kyvik, 2004). Although several attempts have been made to classify higher education systems (Furth, 1973; Teichler, 1988; Geiger, 1992; Kogan, 1997), the researcher believes the typology introduced by Scott (1995), provided a comprehensive classification. It distinguished the main models as: (a) university-dominated systems; (b) dual systems; (c) binary systems; (d) unified systems; and (e) stratified systems (Kyvik, 2004).

University-Dominated Model

In this model, only universities and university-level specialized colleges are considered higher education institutions, while institutions offering short-cycle vocational programs are not regarded as part of higher education. This was the standard model throughout much of Europe until the beginning of the 1960s. Italy is the only country in Western Europe today where this system still exists.

Dual Model

In this model, universities and other post-secondary education institutions are regarded as entirely separate and treated differently, although the majority of short-cycle vocational programs are recognized as higher education. A distinction is made between the university and non-university sectors, where universities clearly dominate. The non-university sector is split into a large number of paraprofessional institutions, with distinct regulations. This model, with institutions that offer two- or three-year vocational courses in a limited number of subjects, was common during the 1960s and 1970s. It superseded the university-dominated model in many countries. Today, no country in Western Europe is currently employing a pure version of the dual model, although, Austria and Switzerland still have elements of the dual model system.

Binary Model

The binary model is regarded as a more formalized version of the dual model. It was first established in the UK and Australia in the mid-1960s (Davies, 1992). A major

distinction between the dual model and the binary model is that in the binary model both the university and the non-university sector are subject to a common system of regulations. Another difference is that while in the dual model the non-university sector normally consists of many small and specialized institutions which are organized on a functional principle basis, in the binary model this sector is normally organized in multidisciplinary centers located according to geographical criteria. Today The Netherlands, Germany, Belgium, Norway, Ireland, Greece, Sweden, Portugal, Denmark, and Finland are all countries with a binary higher education system.

Unified Model

In the unified model, the majority of higher education programs, whether traditional or vocational, are offered within universities. The unified model was developed using one of the following three ways: by upgrading polytechnics to universities (the UK), merging traditional universities and polytechnics (Australia), or incorporating vocational post-secondary institutions into universities (Spain). Consequently, individual colleges have the choice of continuing to exist as an autonomous institution designated as a university, or being integrated into an existing university.

Stratified Model

The stratified model has no clearly defined educational sectors; instead, it is a hierarchy of higher education establishments. This model characterizes the American system, where a distinction is made between universities at the top of the pyramidal hierarchy, followed by colleges, and then community colleges at the base of the hierarchy. The stratified model consists of a small number of elite universities at the top level, and a large number of vocationally oriented colleges at the base. The college sector comprises the four-year liberal arts colleges and the two-year community colleges. While the four-year colleges frequently offer the same education as undergraduate colleges within the universities, the two-year community colleges essentially offer a broad range of vocational courses, but also the first two years of a bachelor degree course (Scott, 1995).

France is probably the only exception to the above five models. Higher education in France is offered in: (1) the high level- grandes écoles, which are considered to be the most prestigious and are not considered to be part of the higher education sector.

The grandes écoles offer education for engineers and managers and constitute a relatively small proportion of the total number of students in France; and (2) institutes universitaires de technologie (IUT) where short-cycle vocational programs are offered. IUTs are departments of universities which have been granted, by law, more autonomy than ordinary university departments regarding recruitment of staff and budget management.

The French higher education system contains elements of a stratified system, reflected in the prestige attached to the different types of institution. Unlike the American system, it does not possess the pyramidal structure (Kyvik, 2004).

The current model of higher education in the UK began to take shape after World War II and as a result of the post war syndrome. The demand for higher education increased significantly and led to the establishment of a number new universities and the upgrading of some university-colleges to universities. In 2002, higher education in the UK included 180 publicly-funded institutions, 100 of which are universities. All British higher education institutions are publicly funded except for the University of Buckingham; however, many universities also secure some of their funding from non-public sources (Woodley, et al, 2000).

The main direction of most higher education models in the Western European countries is set by the Ministries of Education and then transmitted to the universities which have the task of designing their own policies, and then articulate them in their strategic institutional plans. Most universities in Western Europe are also state-funded; the extent of this funding varies from one country to another (69% in France, 98.1% in Germany, 70% in the UK). Most European countries have specialized national entities whose mission is to allocate funds to each higher education institution on the basis of qualitative and quantitative criteria. The resources of higher education institutions are public money and/or, own income (Zaharia, 2002).

The public money comes from subsidies provided by the governments through the national Ministries of Education or by other ministries and large bodies such as the CNRS in France (National Centers for Scientific Research). The self-generated

income comes from university patent rights, tuition fees, continuing education, research contracts, books and studies, financial investments, sale of publications, as well as private donations and endowments.

As with the US, universities in Western Europe expanded rapidly after World War II in terms of both numbers of institutions and students, and they embraced new forms of organization and new teaching and learning techniques (Smith, et al, 2002). The late part of the nineteenth century experienced changes in the terms and direction of education in the US mainly due to the rise of its productive and technical capacity and the flow of UK educationalists across the Atlantic. Although initially the flow of educationalists was from the US to Europe, made possible by the creation in 1902 of the Rhodes Scholarships designed to grant US scholars access to periods of study at Oxford (Kenny 2001), traffic started to flow in the reverse direction in 1924, facilitated by the Commonwealth Fund with its Fellowships to enable educationalists from the UK and other scholars to undertake two years' university based study in the USA. This flow from Europe to the US experienced a significant increase after World War II. The freedom given by the US government to the private efforts for international educational and cultural exchanges before the war was changed after 1945, through legislation such as the Fulbright Act (1946) and the Smith-Mundt Act (1948), in an attempt to exert leadership in educational and intellectual exchange. In the five years from 1945 to 1950 the number of foreign students in the US increased from 7,000 to 30,000 (Smith, et al, 2002).

Douglass, (2004), lists three main differences between the US and the UK higher education systems. The first difference is in the structure of academic degree programs. The US system is structured into a first tier with colleges and universities exclusively offering four-year programs leading to a bachelor's degree, and a second tier in which students in liberal arts programs generally do not know what area they will specialize in, and most will not decide until their junior (3rd) year.

In the UK the bachelor's degree is usually a three-year program with a number of important exceptions. The entire university program is highly specialized in a specific field of study. The second main difference between both educational systems can be seen in the flexibility and decision making processes. The US allows

students to make their decisions. In contrast, in the UK, in particular England and Wales, a university or vocational track is a decision made at the age of 16 for the vast majority of students. The third difference can be seen in how post-secondary education is viewed. While in the US post-secondary education is deemed as beginning at age 18 and normally following graduation from high school, it is historically viewed as part of the higher education system whether it is university-based or non-university-based.

In the UK higher education also begins at 18, but with a view that clearly marks the difference between university-based and non-university-based education (Douglass, 2004). Table 1 displays a comparative view of US and UK higher education.

Table 1 : A Comparative view of US & UK Educational Models

	United States	United Kingdom
Pipeline: Secondary Systems	Largely Public/Significant Private Sector Institutional Types: 4 Year Public/State High Schools 4 Year Private/Independent High Schools	Largely Public/Significant Private Sector Institutional Types (England, Wales, NI): State Comprehensive/Special (to age 16) State Comprehensive (to age 18) Further Education Colleges (Ages 16-17) Independent Schools and Colleges
Access/Undergraduate Admissions	Open Access Age 18>: Community Colleges Selective Colleges and Universities: High School Diploma (Age 18) plus Standardized Test Scores (Age 17-18)	Open Access Age 16>: Further Education Selective Universities: GCSEs Exam (Age 16) plus A-Level Exams (Age 17-18)

HE Institution and Systems	Largely Public/Significant Private Sector Institutional Types: 2-Year community Colleges Teaching colleges & Universities Research Universities	Public/No Major Private Sector Institutional Types: Further Education Research Universities
Academic Programs	2 Year AA degree (Liberal Arts) & Vocational 4 Year BA/BS Professional Degrees Masters and Ph.D.	Further Education/Vocational 3/4 Year BA/BS Professional Degrees Masters and Ph.D.

Source (John Aubrey Douglas, 2004)

2.4 Higher Education in Developing Countries and the Middle East

2.4.1 Introduction

In contrast to the large amount of literature available on education contexts and experiences of western industrialized states (Developed Countries), there is little in the comparative education literature about developing countries, especially the Gulf States (Tikly, 2001). Since the 1990s, higher education has been positioned as one of the most important factors for development in low income countries. In the context of the knowledge economy, the view is that countries that are materially poor now have the ability to access, generate and transmit information rapidly across the globe to transform themselves into countries that are ‘information-rich’ using shared knowledge for economic development (Naidoo, 2011). Over the past half century, higher education has transformed from a preserve of elites, accessible largely by the wealthiest and privileged groups, to a global industry annually enrolling tens of millions of students. This growth, particularly in developing countries, has been especially rapid in the last decade. For example, in 1991 enrollment in higher education globally was 68 million; by 2004 the number almost doubled to 132 million (UNESCO, 2006), and is projected to reach 150 million by 2025 (Moe and Blodget, 2000).

In Latin America, higher education gross enrollment ratios rose from 1.6 percent in the 1960s to 29 percent in 2002 (Guadilla and Guadilla, 2005). Similarly, the number in China went up from 2 percent in 1990 to about 16 percent in 2005. By the late 1990s, 75 developing countries had primary enrollment rates of over 90 percent. Table 2 displays the rapid growth in higher education across the globe between 1980 and 2004.

Table 2: Gross Enrollment Ratio (%),a Higher Education

	1980	1997	2004
High Income countries	36.2	51.6	66.7
Least Developed Countries	1.8	3.2	8.7
Sub-Saharan Africa	1.7	3.9	5
Arab States	9.6	14.9	22.6
Latin America and the Caribbean	13.7	19.4	28.6
East Asia and Oceania	3.8	10.8	19.6
South Asia	4.3	7.2	9.7

Source: World Bank EduStats /a: The gross enrollment ratio is the total enrollment at a given educational level, regardless of age, divided by the population of the age group that typically corresponds to that level of education. The specification of age groups varies by country.

The rapid growth in higher education enrollments reflects shifting demographics, changing economic structures and significant improvements in access to primary and secondary education. In addition, the growing number of young people in developing countries is also contributing to this demand for higher education. For example, in countries such as Pakistan, Malaysia and Vietnam, close to 65 percent of the population is under the age of 30. Also, the changing labor market dynamics have increased demand for “life-long learning”, drawing in students outside the traditional 18-24 year old age bracket. Nearly two-thirds of students enrolled in Singaporean higher education are over the age of 25 (IFC, 2006).

Table 3: Population Aged 15-24 (in millions)

Year	Africa	Asia	Europe	Latin America & Caribbean	North America	Oceania	Less Developed Regions	World
1950	42	267	95	32	26	2	325	463
1980	92	514	113	74	48	4	664	844
2000	166	663	101	101	43	5	916	1,080
2010	210	750	93	106	50	5	1,054	1,213
2025	278	710	76	108	51	6	1,087	1,228
2050	354	655	67	97	53	6	1,100	1,232

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision*, <http://esa.un.org/unpp>,

Although total number of enrollment of developing countries compared to those of developed countries is still far behind, the main problem is still the quality of higher education. The condition of higher education in developing countries is partially due to a lack of resources. Higher education in developing countries has long been poorly funded. While it may be understandable that expenditures per student are far below those in industrialized countries, the high variance in expenditures reflects their very different capacities for research, rather than teaching. In terms of investment, higher education in developing countries has received less investment support in the international development community. This stems from the belief that higher education yields lower social returns relative to other investments, especially primary and secondary education, and therefore receives fewer public resources (Schultz, 1998). A 1986 World Bank study estimated that social rates of return for higher education in developing countries were on average 13 percent lower than the returns from basic education (Psacharopoulos, Tan, and Jimenez, 1986). A more recent review of 98 countries from 1960-1997 found that the typical estimate of the rate of return from primary schooling was 18.9 percent, while for tertiary education the return was just 10.8 percent (Psacharopoulos and Patrinos, 2002).

There have been some global initiatives to assist higher education in developing countries. For example, in 2006 more than 100 higher education institutions and associated organizations from around the world launched the Open Courseware Consortium, each pledging to place course materials for at least 10 courses online for free (Ennew and Greenway, 2012). The OCW website provides planning materials (syllabi, pedagogical statements, teaching materials), subject matter content and learning activities. In addition, many universities are digitizing their libraries, which provide to universities in developing countries an essential but extremely expensive part of higher education. Nonetheless, the availability of these resources online does not solve the problem of access in the developing world due to the prohibitively high cost of internet access. Between 1995 and 2005 internet access grew from three percent of the world's population to more than 11 percent (UNESCO, 2005). Yet only 3.6 percent of the population in Africa uses the Internet, while in the Middle East and Asia only 10 percent do so.

Internet technology is still prohibitively expensive in many developing countries. In more than half of the countries in Africa, the annual cost of Internet access exceeds the per capita income. Only in Egypt, Libya and Mauritius is the annual cost for an internet connection less than 10 percent of the average income. African universities paid on average \$10,000 per month for the same amount of bandwidth that individuals in Western Europe and North America receive at \$100 per month. At the University of Iowa in the United States, the 28,000 students have access to two 150M bits/second connections to the internet. In comparison, at the University of Jos, one of the better-connected universities in Nigeria, 13,000 students share a single satellite connection with 1/2344 of the bandwidth of the University of Iowa (Miner and Missen, 2005).

2.4.2 Higher Education in the Middle East

The history of higher education in the Middle East region dates back to eleven centuries ago with the start of the Islamic renaissance in Baghdad. Libraries and conservatories were established. Science and research were conducted in Cairo, Damascus and Tunis. This intellectual heritage was replaced by European science and technology in the nineteenth century. Although Western science and education was welcomed, the implementation of it posed some challenges (Shafeeq Ghabra and Margreet Arnold, 2007). Similar to other institutions in the Middle East, higher education was significantly shaped by European Colonialism. Though Europeans may be credited for introducing compulsory education, their primary interest was to create an educational system that would support their interests. With the exception of the American University in Beirut and the American University in Cairo, the United States of America did not play a major role in Middle East higher education prior to World War II (Rupp, 2009). The 1960s was the starting point for higher education in many states in the Middle East. According to a 2007 study commissioned by the world bank entitled “The Road Not Traveled: Education Reform in the Middle East and North Africa”, ‘The Modern history of education in the Middle East and North Africa (MENA) region is a tale of ambition, accomplishment, falling short, and unfinished.

Along this path, the region has accomplished much: most children benefit from the compulsory schooling, quite a few have opportunities to continue their formal education, and learning outcomes have improved. These achievements are impressive, particularly if one considers the starting point during the 1960s” (World Bank, 2007). On average, the region has devoted about 20 percent of governmental expenditures to education, which led to a dramatic improvement in access to education. Gender parity is almost complete (Rupp, 2009). But despite the strides in the region’s educational system in the past 40 years, the report warns that “the relationship between education and economic growth has remained weak, the divide between education and employment has not bridged, and the quality of education continues to be disappointing”. While the report emphasizes that the quality of education varies from country to country within the region, the educational system of many countries in the region needs a complete overhaul (Labi, 2008).

While both public and private universities have operated in the Middle East for quite some time, they remain few in number relative to the needs of the population. Many of these institutes have not adequately prepared their students for the local or global market. Scientific education and research has been widely neglected (Rupp, 2009). According to a 2003 report by the United Nations’ development program on the state of science and scientific education in the Middle East:

- 0.2 percent of the gross national product is the maximum spent by any country in the region on scientific research. Most of the money goes toward salaries.
- Out of every 20 universities in the region, only one pursues scientific disciplines.
- While the global average for computer usage is 78 per 1000, only 18 computers per 1000 are used in the Middle East.
- The number of industrial patents issued in the whole region between 1980 and 2000 is only 370, compared to 16000 only in South Korea.
- Only 10000 have been translated into Arabic in the entire past millennium, compared the number translated into Spanish each year.

(Del Castillo, 2004)

The recent years have, however, witnessed a major shift in higher education in the region. More specifically, the states belonging to the Gulf Cooperation Council (GCC) - including Kuwait, Saudi Arabia, Bahrain, Qatar, Oman, and the United Arab Emirates - have devoted billions to the development of higher education. Many of these states have significantly expanded their private higher education. Many of the new institutions are either in partnership or are somehow affiliated with an American university (Deghady, 2008). The number of American universities and colleges that have established partnerships in the region in recent years are many; a partial list includes: The University of Texas at Austin, Texas A&M University, Virginia Commonwealth University, University of California Berkley, George Mason University, Carnegie Mellon University, George Town University, and Yale University. US involvement in the region's higher education usually takes one or more of the following forms: establishment of research partnerships, consultations, joint degree programs, or satellite campuses (Rupp, 2009).

American-style higher education is widely accepted as being the best form of higher education in the Middle East. American-style or Western-style higher education distinguish themselves from Middle Eastern higher education in their student focus, their use of English text books, their English speaking faculty trained in the West, and their instruction emphasizing critical thinking and analysis. Middle Eastern-style higher education is based on a system of lectures and examinations where students learn to memorize facts (Shafeeq Ghabra and Margreet Arnold, 2007). Higher education in the Middle East is faced with several challenges. While the main problems in higher education for poor countries like Yemen is lack of funds and resources, wealthier countries in the region face other kinds of problems. Student recruitment is one of these key challenges. While there are a large number of students, many of these students do not meet the admission criteria for many of the available higher education institutions. This is directly linked to the low level of quality level at primary and secondary education level in most Middle East countries (Mills, 2008). Also, of course, not to mention that English is not the mode of instruction in most primary, secondary and higher education institutions. Faculty recruitment and retention is another challenge that faces higher education institutions in the region.

Despite the competitive salaries, tax benefits, and housing arrangements, some foreign faculty expressed reservations about coming to the region due to cultural and legal concerns, while others expressed reservations regarding the censorship of teaching materials. Lastly, some of the higher education institutions, especially foreign ones in the region, have witnessed rapid turnover of key administrators (Rupp, 2009; Shafeeq and Arnold, 2007). To offset some of the above challenges, scholars have suggested possible solutions such as: placing more focus on students and modern education trends, employment and retention of high quality faculty, establishment of clear policies and procedures, promotion of research, improvement of university governance system, integration with local culture and laws, application of quality control, and accepting global integration (Rupp, 2009; Shafeeq and Arnold, 2007). Ghabra (2007) believes that improvements to the higher education system in the region can only be warranted when an understanding and acceptable version of universities as agents of change is accepted, when quality control of institutions is implemented, and when integration with the local culture, tradition and laws is in place.

2.4.3 Western and Indigenous Influences

We can see from the above sections that, in general, higher education in developing countries has been involved in policy borrowing from high income countries, particularly the UK and the USA and to a lesser extent continental Europe. Local higher education systems have also adapted to international standards; for example, as early as the latter part of the 19th century many countries in Asia and the Middle East had already established modern higher education systems by simply sending students and instructors abroad for advanced studies. The higher education systems adopted by these countries conformed to Western models such as those of Germany, France, the United Kingdom, and the United States. China and Japan are good examples of countries that have adopted Western higher education models, even though they have not been colonized (Altbach & Selvaratnam, 1989).

From 1945 to the 1980s, internationalization of higher education was influenced by the Cold War and countries were, in general, divided into two big groups. One group of countries accepted the models of the former Soviet Union, and countries in the other group followed the American model. Since the 1990s, various new factors, especially the rapidity of economic globalization and advancement of IT, as well as the introduction of market-oriented mechanisms, have significantly influenced the internationalization of higher education in many countries.

In most developing countries, internationalization of higher education, still maintains its basic character of a process of following advanced countries, mostly English-speaking countries in Europe and especially the United States. This phenomenon seems to have had a significant link to national economic growth, the political system, and the stages of development of higher education. . But, more importantly, no developing country has established centers of excellence in its own academic system that is universally recognized or maintains a quality of higher learning that can exert academic influence at an international or global level (Huang, 2007). Today, there are more reasons for developing countries to rethink and reform their higher education systems (Ennew and Greenway, 2012).

2.5 Understanding the Influences of Higher Education in Developing Countries Through World Polity Theory

2.5.1 Introduction

During my research and review of the literature, I was looking for a global-based theory or analytical approach that could provide an explanation for the enactment of similar, global patterns of higher education appearing in varied forms in different nations and different universities. There are a number of theories that try to understand the global influence of higher education and seek to explain the educational expansion in the sphere of higher education. Many of these theories did not consider the development of global patterns of higher education, nor did they provide an explanation for why universities in the UAE and developing countries are adopting similar patterns of university practice (Yoder, 2006).

One theory that stood out is World Polity theory, prominently for its conceptualization of a cultural frame larger than nation-states. Overton (2012:3) makes the significance of world polity theory clear, “Unlike other theories emphasizing individual agency and the actions of nations as the primary unit of study, the World Polity paradigm highlights the primacy of institutions. By bringing institutions- comprised of both state and non-state actors with specified behavioral expectations- to the forefront, the World Polity paradigm opens the door for the study of institutional isomorphism within and across international borders over time”. In the next sections, I will briefly discuss some of those theories in order to provide the reader with a general sense of theories that may surround this topic, while delving more into other theories that are more relevant to our discussion. I will begin by discussing theories of higher education expansion before turning to globalization and theories relating higher education and globalization.

2.5.2 Higher Education Expansion Theories

Higher education expansion theories include **functionalist theories**. They argue that national economic development is the driver for higher education expansion, and that the demand for investment in higher education is both collective and individual. There has been little support however both empirically and theoretically for this theory. A second important theory has been **human capital theory**. This theory perceives relationship between the need for trained human resources and the expansion of education. In other words, the changing structure of the job market and the changing patterns of the needs for specific jobs, are linked. As returns on educational investment increase, so will the number of people seeking more education. This theory has been challenged by empirical data indicating that supply of higher educated persons has exceeded the demand (Becker, 1964; Blaug, 1970; Freeman, 1976; Mincer, 1958; Schultz, 1961 as cited in Tian, 1996, Brown, Lauder and Ashton, 2013). **In response to some of these criticisms, theories related to conflict have emerged.** In general such theories have argued that educational expansion is a result of competition among groups for status and power. With education increasingly becoming an important element of social status, societies will seek more and more education resulting in inflation of credentials (Bourdieu & Passeron, 1977; Boudon, 1974; Collins, 1971, 1979 as cited in Schofer, 2006; and Tian, 1996).

Although it is beneficial to understand what the above theories say about possible causes for the expansion of higher education in general, the above theories did not focus on global factors of higher education, nor do they explain why universities in the UAE are adopting patterns of the American HE system. As a result, I extend my discussion to include globalization theories. However, before we discuss higher education globalization theories, it is important that we briefly define and explain what globalization means, especially in the context of higher education. In this section, I introduce globalization, and then move to discuss higher education globalization theories.

2.5.3 Globalization

Little emphasis has been given to defining globalization in precise terms in higher education (Lub, 2007; Tikly, 2001). Gibbons (2002) and McBurine (2001) argue that research on the globalization of higher education is complex “because globalization is a complex a phenomenon that it is difficult to enter into its various processes and extract those which are likely to have the greatest impact on higher education” Tikly (2001) argues that: “A problem with many accounts of globalization and education is that they lack the precise definition of the term globalization. The lack of a precise definition is unfortunate given the slippery nature of the term and makes it difficult to assess the usefulness of the concept”. (p. 152). Jones (1998) describes globalization as “economic integration, achieved in particular through the establishment of a global market place marked by free trade and regulation” (p. 143). This focus became increasingly challenged. McGrew, Goldblatt, and Perraton’s (1999) definition is much more detailed and includes a greater range of factors than just economic. They define globalization as “a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions – assessed in terms of the extensity, intensity, velocity and impact – generating transcontinental or interregional flows and networks of activity, interaction and the exercise of power” (p. 16). This definition, entails a focus on globalization’s geographical implications, social relations, as well as political issues. This definition is more inclusive and it captures the essence of what globalization entails (Nyang’oro, 2013).

In relation to higher education Altbach (2004) defines higher education globalization as “the broad economic, technological and scientific trends that directly affect higher education and are largely inevitable. Beerkens (2004) defines globalization in higher education as, “a process in which basic social arrangements within and around the university become dis-embedded from their national context due to the intensification of transnational flows of people, information and resources” (p. 24). What can be concluded from all the above is that “globalization is not only an economic phenomenon, but also political, cultural, social, technological, and others” (Meyer, 2007). And while there are significant differences in the literature on what globalization is, there is also a growing consensus that globalization entails “rapid transference and adoption of institutional design and policies from some countries to others, and the emergence of international regulatory standards” (Bourne, 2004). Specifically in higher education, higher education policy changes parallel to and some would say related to globalization has resulted consistently in of: Less subsidization by government, a push toward income diversification, an increased commodification of knowledge as intellectual property, linking of higher education to national economic agendas, the pressures for new forms of accountability s, quality movements by governments, to monitor or audit institutional processes, a focus on outcomes instead of inputs, and concerns with social justice and equity issues (Porter, 2000) ; (Boli, 2013).

Now that we understand what globalization means, especially within the context of higher education, let us discuss some of the relevant globalization theories and frameworks that may help us better understand the effect of globalization in higher education. In this section, we discuss the Glonacal Agency Theory, World System, neo institutionalism, and World Polity. Special attention is given to World Polity frameworks since we use it as the theoretical framework in this study.

2.5.4 Higher Education Globalization Theories:

One influential theory is the Glonacal Agency Heuristic developed by Marginson and Rhoades’ (2002). It considers influential factors at multiple levels; the (glo)bal level, the (na)tional level, as well as the lo(cal) level, hence the name “Glo-na-cal”. Marginson and Rhoades (2002) consider “agency” in two senses, first, “agency” means “organization,” and includes organizations at the global, national and local

levels. The second meaning of “agency” is “ability to act.” In the first sense of the word “agency”, organizations at the national level could mean national government organizations that create national level higher education policies, while local level agencies/organizations may include universities, or individual actors like professors and students. Using the second interpretation of the word, all levels of agencies, or organizations, have the ability to act and to shape the globalization of institutions. In this sense, globalization is not so much a force; it is a process, by which organizations related to higher education become more globalized through the interaction of agencies at different levels (Yoder, 2006).

Although this framework by Marginson and Rhoades considers how global patterns of higher education maybe influenced by “nationally and locally embedded layers of structures” (p 6), the Glonacal Agency Heuristic does not explain where global patterns of higher education come from, nor does it explain how to analyze how local organizations , such as federal higher education institutions in the UAE and national organizations (national governments or the Ministry of higher education and research in the UAE) incorporate global patterns into pre-existing institutions (Yoder, 2006).

A second influential theory is World Systems Theory. World Systems Theory became popular during the 1970s in response to the weaknesses of Modernization Theory. The fundamental principal of Modernization Theory is that countries will pass through similar stages of development. The theory could not explain why certain areas of the world remained chronically underdeveloped (Hopkins & Wallerstein, 1977). According to World Systems Theory, the world is maintained and structurally reproduced as regions, or areas, with varying levels of economic activity and power (Hopkins & Wallerstein, 1982). A key limitation of the World Systems theory is its assumptions of direction of influence. The theory assumes that the “core areas” or developed countries of the global economy influence developing countries by modifying economic and political/social systems, and consequently higher education (Yoder, 2006). However, recent research on higher education globalization questions the idea of a single direction of influence of globalization on higher education (i.e. Levin, 2004; Musselin, 2004; Marginson & Rhoades, 2002; McBurnie, 2001; Mok, 2000).

Neo-institutional theory is also influential in higher education studies. According to Dacin, Goodstein and Scott (2002), Neo-**Institutional Theory** helps explain both individual and organizational action. DiMaggio and Powell (1991) state that “sociologists find institutions everywhere, from handshakes to marriages to strategic-planning departments.” (p: 16). Instead of focusing on elements that tend to separate organizations such as technical elements, institutional theory emphasizes “social and cultural” elements that attempt to illuminate similarity and stability among organizations (Ashworth, Boyne and Delbridge, 2005). Because of new institutionalists like DiMaggio and Powell, the institutional framework became focused not only on the internal environment of organizations (as in older forms of institutionalism), or on the external environment organizations but a combination of both which was referred to as new institutionalism) (Caravella, 2011). New institutionalism tends to focus on organizational structures and processes that are industry-wide, national or international in scope” (DiMaggio & Powell, 1984/83). According to Meyer and Rowan (1977), “organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work institutionalized in society” .Meyer and Rowan (1977: 35) argue that “the more an organization's structure is derived from institutionalized myths, the more it shows elaborate displays of confidence, satisfaction, and good faith, internally and externally”. Organizations tend to become isomorphic within their institutional environment to maintain legitimacy”.

Critics of neoinstitutionalism such as Levy (2006) state that the focus of neoinstitutionalism on homogeneity and persistence fails to acknowledge that institutional arrangements can “change in character and potency over time” and can, themselves, act as powerful agents of change (Dacin, Goodstein & Scott, 2002, p: 8). Finnemore, (2009) argues that the institutionalists' inattention to agency and the mechanisms by which social structure produces change leads into serious errors. She also contends that the theory overlooks power and coercion. Indeed, many empirical studies have challenged the argument that organizational change over time will be that of convergence rather than divergence (Stensaker, 2004). The wide spread of private higher education institutions in many regions of the world illustrates that diversity, rather than isomorphism, has tended to be the leading trends in the development of the private sector in higher education (Levy, 2004).

Some researchers argue for the need of ‘revised new institutionalism’ (Levy, 2004: 4; Stensaker, 2004: 35).

I will now turn to world polity theory. Given some of the limitations of the theories described above, and in order to understand the high degree of policy borrowing and emulation of higher education policy by developing countries from high income countries both in the past and in relation to the empirical focus of this thesis, world polity theory may be very useful.

The world polity school (also known as world society, world culture, or Stanford school of sociological institutionalism) was founded in the 1970s by John W. Meyer, a Stanford University sociologist. World Polity is a critique of three traditions: modernization, world-systems theory, and rational choice institutionalism. While modernization approaches fail to account for increasing isomorphism in state policies and institutions in areas covering areas such as education, environment, human rights, and several others; World System and rational choice institutionalism do not explain the rise and role of International Non-Government Organizations (INGOs). According to the polity theory, “a rationalized world institutional and cultural order has developed since the middle of the nineteenth century. That order consists of universally applicable models that shape states, organizations, and individual identities. These universally applicable models continued to develop a world culture that has crystallized as the constitutive element in world society, a set of principles and practices that can be followed anywhere”. (Meyer et al., 1997: p 16).

World Polity theory embraces constructivist ontology in terms of defining state identity and interests as constructed by emerging “global scripts,” which are enacted in the global nongovernmental forums” (Yoder, 2006: 2). Public officials, private organizations, and intellectuals, primarily in the West, have elaborated ideas that such as state sovereignty and individual rights that have become universally valid. “International life, especially after World War II, acquired a pervasive cultural structure. International meeting and world movements helped substantiate those ideas as well.

Because of this new international life phenomenon, various states at very different economic levels adopted common precepts and established common institutions, regardless of their actual usefulness (Meyer et al., 1997: p 16). Lechner has stated that "This new world culture has in fact been widely enacted. It has become a common heritage, institutionalized across the globe and supported by many transnational groups, not only within the West": (Lechner, 2000: p 1). "This is not to say that enacting global models will automatically lead to a completely homogeneous world. Institutionalization under different conditions will produce significant local variation. Regions differ in their interpretation of core notions such as individual rights, and world culture is not free from contradictions" (Lechner, 2001: p3).

The term "polity" is used to refer to a "system of creating value through the collective conferral of authority" (Meyer 1980; p 3). The system is constituted by a set of rules, also called frames or models. Actors in the system are "entities constructed and motivated by enveloping frames" (Boli and Thomas, 1997: p 2). The "World Polity includes no single actor or institution defining what is valuable for the world as a whole, instead of a central actor, the culture of world society allocates responsible and authoritative actor-hood to nation-states" (Meyer et al., 1997: p 15). For example, organizations such as accreditation agencies, scientific associations and environmental movements, and others helped to create, expand, and implement this common world culture (Lechner, 2001). The enactment of global cultural models causes similarity among the different institutions and states. Meyer (1997) further argues that the culture models shaped by world polity are more structured than they would have been by only local, cultural, functional, or power processes.

In terms of structure, "the world cultural order consists of models defining actors (e.g., nation-state, individual), purposes (e.g., development, progress), and principles (e.g., human rights, justice). Four main 'elements of collective world society' contribute to and implement the tenets of this order: international governmental organizations, especially those in the UN system; nation-states, which engage in copying that leads to diffusion; voluntary associations in many different fields, some operating as social movements; and scientists and professionals, as experts whose own authority derives from world-cultural principles" (Meyer et al. 1997 ;Lechner,

2000). In terms of how World Polity operates, world culture constitutes states as rationalized actors. In other words, states are entities that are systematically organized and operate according to formal rules. Because world culture is highly rationalized and universalistic, nation-states form as “rationalized actors” (Meyer et al. 1997: p 152-3) See also Lechner, 2000). Once properly constituted, states tend to maintain their sovereign status. Institutionalization of world models leads to structural similarity. That is how different nations today adopt similar constitutional forms, public educational systems, policies on human's rights and the environment (Lechner, 2000). But just because states tend to adopt similar models, it does not mean that these models are easily transferrable in actual practices (Meyer et al. 1997). . In order to understand how change occurs within the world polity, one must understand that competing for the same goals by the different states creates a conflict, and will eventually lead to reform (Meyer et al. 1997). For example, the Bologna process has joined more than 40 European and Asian countries in common higher education reforms. International organizations have become a major player in education policies (Jacobi, 2005). This is not restricted to developed countries but is filtered into developing nations as the work of Jacobi & Rusconi,(2005) and Kai Ming et al (1999) indicate . For example, the World Bank has attempted to homogenise education policies, with attendant pressures for their adoption in developing countries (Jones, 1992; Rose, 2003).

Universities were hardly viewed as local organizations shaped by specific economic and political functions. According to Meyer, “a much broader cultural and civilizational mission has always influenced higher education” (Meyer, 1980: 17). As we have stated before, many theories that focused on the distinctive local or even distinctive national factor cannot account for the global explosion of higher education after World War II. This growth requires a transnational flexible higher education system. Higher education is becoming more and more globally standardized, even in different communities and different countries regardless of their available resources and different traditions. This can be viewed either as directly linked to lifelong learning as a causal story (Stone, 1989); or by sharing the policy with the knowledge society and the states within (Jacobi, 2005), and that is what I argue in the case of the UAE in this thesis.

World polity theory according to its adherents is useful to explain the global development of education (Adick, 2005; Boli and Ramierrez, 1986). In higher education, World Polity theory can be used to explain the transition from technical assistance to developing countries thirty years ago to the translation of norms and policies. It has transitioned from the mobility of individuals and transplantation of national higher education models in a designated country to programs, degrees, campuses, and accreditation standards at a global level. Activities such as internationalization of curricula, establishment of international accreditation and non-accreditation organizations, and a great number of universities at both regional and global levels (Kane, 2012) are increasing. As Jacobi indicates “The driving forces, policies and practices concerning internationalization of higher education in individual nations are not only affected by their national policy, character and identity, but are also influenced by pressures from international, regional and global organizations” (Jacobi, 2005 p 131). The dependency on knowledge, especially scientific and technological knowledge, and on innovation to enhance each country’s comparative advantage in the global economy has led to the positioning of higher education as a crucial engine for economic development (Carnoy, 1994). Higher education is increasingly deployed to assert socio-political and cultural influence in the regional and global context (Naidoo, 2007). Higher education can be viewed as a structure whose nature and meaning have been institutionalized over many centuries and now apply throughout the world. The meaning of categories such as student, professor, university, or of topics such as physics, may be locally shaped in minor ways, but at the same time have very substantial historical and global standing. Viewing higher education as an institution helps explain many of its characteristics and its effects in modern society (Meyer, et al, 2006). Thus World Polity theory in all its variants opens up important conceptual ways of analyzing the development of higher education in the UAE and the degree of western and indigenous influences that is seen today in many aspects of the federal higher education system in the UAE, especially pedagogy, faculty, curricula, and accreditation. Although, I believe that World Polity theory is the most appropriate framework for the investigation of this study, it is important that to understand some of the criticism World Polity theory faces, before I move into the application of the theory to the context of higher education in the UAE.

2.5.5 Criticism of World Polity

Over time, several interrelated criticisms of World Polity have arisen, mainly on the basis that World Polity theory does not explain the role of domestic agency, it does not explain the mechanisms and agents of world polity diffusion, and it overlooks the power and contestation of exogenous norms (Finnemore, 1996; Hornberg, 2009). Axford (1995) rejects what he calls top-down accounts of world polity diffusion and suggests taking the interaction between domestic and the external sources of transformations more seriously. In a more recent review, Overton (2012) criticizes the over-emphasis on global cultural processes at the expense of economic factors, while Dobbin, et al. (2007) invites developing sophisticated accounts of different diffusion mechanisms of world polity. Beckfield (2008) criticizes the overall density of world polity networks (number of international organizations) and the overlooking of the persistent inequality within world polity structure (Buhari, 2013). Other critics point to the fact that world polity theory assumes a rather flawless and smooth transfer of norms of world polity to the global actors while in reality that might not always be plausible. It also assumes that globalization is fully understood and can be fully explained, when in fact it is a phenomenon in which local values and global cultures converge to create something new (Finnemore, 1996; Schofer et al., 2009). Importantly, Drori et al. (2003) state that the role of local culture is not given enough weight in World Polity theory, and that the theory tends to over-emphasize the national level represented in nation-states, national markets, and national systems of higher education. It is also stated that local factors within universities that make universities resistant to change, are missing or under-emphasized from the analysis of globalization of higher education. To address some of those concerns, Schofer (2009: p21) argues that by “de-emphasizing actors, interests, and power, world society scholars are not able to pose questions about phenomena that are unobserved or unremarked upon by more conventional actor-centric and power-based theories; and that the cultural aspects that accompany the organizational aspect do not defuse in the same manner, but defuse in particular lines and directions specific to each environment”.

These criticisms are important and will be taken into consideration and returned in concluding parts of the thesis.

2.5.6 Usefulness of World Polity in Framing the Research Questions

In this section, I discuss the usefulness the World Polity theory in assisting with the framing the research questions of this study, in particular in relation to issues of culture and governance, and with the understanding that globalization is a highly contested phenomenon.

A key feature and specific strength of the world polity framework is how it connects theory and empiricism, which is seen in many analyses, including several on global developments in education, such as Meyer, Kamens, & Benavot(1992); Meyer & Ramirez (2000); Meyer, Ramirez, Robinson, & Boli-Bennett (1977); Hornberg, (2009).The research questions of this study are concerned with whether the UAE federal higher education model is a product of a global higher education culture, or not. Although the federal higher education model of the UAE clearly draws from the globally dominant North American model of higher education, more specifically in terms of instruction language, curricula and pedagogy, there are other elements in the federal UAE higher education model that are drawn from and perhaps necessitated by the surrounding political, economic, and cultural environments. A key feature of the world polity theory is that the enactment of global models creates considerable institutional similarities among differently situated states (Meyer, et al, 1997). This key feature can be seen in several areas of the federal higher education model in the UAE; which is an example of voluntary association with the standards, policies, and knowledge of the American higher education system.

World Polity theory was very useful in assisting me with connecting the global and local pieces of this study, mainly because of its conceptualization of a cultural frame larger than nation-states. In addition, “by bringing institutions- comprised of both state and non-state actors with specified behavioral expectations- to the forefront, the World Polity paradigm opens the door for the study of institutional isomorphism within and across international borders over time” (Overton, 2012: 3). The World Polity theory provides a cognitive context in which both nations and international organizations exist. This cognitive context offers a unique lens through which one may better understand the function of these entities within the international system (Beckfield 2003; Beckfield 2008; Cao 2009; Hughes, et al. 2009; Kelley 2004;

Schimmelfennig 2005 (Overton, 2012). World polity draws attention to institutional factors on a global dimension.

The world polity framework takes into account all encompassing cultural frames of reference in which the social reality is produced and perceived (Yoder, 2006). This approach facilitated and provided a possible understanding of the numerous international accreditations received by UAE federal higher education institutions, such as those received by ACBSP, ABET, and the Middle States Associations of Colleges in the US. It also provided a possible understanding to the use of English as the instruction languages in a country where the native language is Arabic. It also provides a possible explanation of why the UAE with its conservative culture and long-standing hierarchical, centralized structure is now hiring faculty with different cultures and background to the values most students were raised with. This conformity could be the product of a global higher education exchange. The world Polity of higher education has played a key role in sustaining and promulgating a common culture to nations around the world, in our case to the UAE. This worldwide American model of higher education is being partially and sometimes fully used in other countries to define what is appropriate for higher education institutions in terms of goals, curricula, policies, etc.

This supports the findings of Meyer, et al (2006) that higher education not only expands but it also is increasingly standardized around the world and while communities and states may vary in terms of resources and traditions, universities nevertheless grow more similar with respect to goals and programs for meeting these goals. The four main "elements of collective world society" exist: international governmental organizations, the Middle States of Colleges and Schools; nation-states, the UAE, which engage in copying that leads to diffusion; voluntary associations, seen in accreditation, outcome assessment, curriculum and instruction; and scientists and professionals, faculty and higher education experts whose own authority derives from world-cultural principles" (Meyer et al. 1997).

The "World Polity provides a plausible framework for accounting for many elements of the system that has emerged since the shift from the Egyptian to the 'American' model, because they are wholly consistent with the basic global model of

the university” (Boli, 2014). Based on all the above, the research questions were formed in a reverse-engineering mode: **First**, understand what are the main characteristics of the new federal UAE higher education model, and the rationale behind its emergence (RQ1), **Second**, using the lenses of World Polity, understand to what degree are education reforms in the newly adopted federal higher education model attributable to global, American model of higher education (RQ2).

It is my conclusion that the World Polity was very useful in helping me frame the research question of this study, not only to show the similarities between the new federal higher education model in the UAE and the North American mode, but more importantly, to illustrate the difference and the contrast between the two models as well. This study will help me to analyze the assumption of flawless and smooth transfer of norms from global actors and the assumption that globalization can be fully explained, especially in the presence of strong local culture as in the example of the UAE.(Drori, et al, 2003).

2.6 Conclusion

In order to understand the global effects on higher education in the UAE, one must first understand the global context of higher education. This chapter was dedicated to introducing the history, development, global trends, challenges, and key models of higher education in Europe and the US. In this chapter I outlined a picture of the development of higher education in developing countries and the Middle East, and how developing countries,, may not have the funds and resources to improve their antiquated higher education system, while other GCC countries are pouring billions of dollars and seeking American and European expertise to improve their higher education systems. In addition, the chapter covered the influence of the West in the development of higher education systems in the Middle East. A number of analytical frameworks have been covered to understand higher education globalization. While criticisms of World Polity theory have been acknowledged, it was nevertheless felt that this provided a valuable theoretical lens to understand the developments linked to public higher education in the UAE. In the next chapter I will turn to an analysis of higher education in the UAE.

Chapter Three: The Development of Higher Education in the UAE

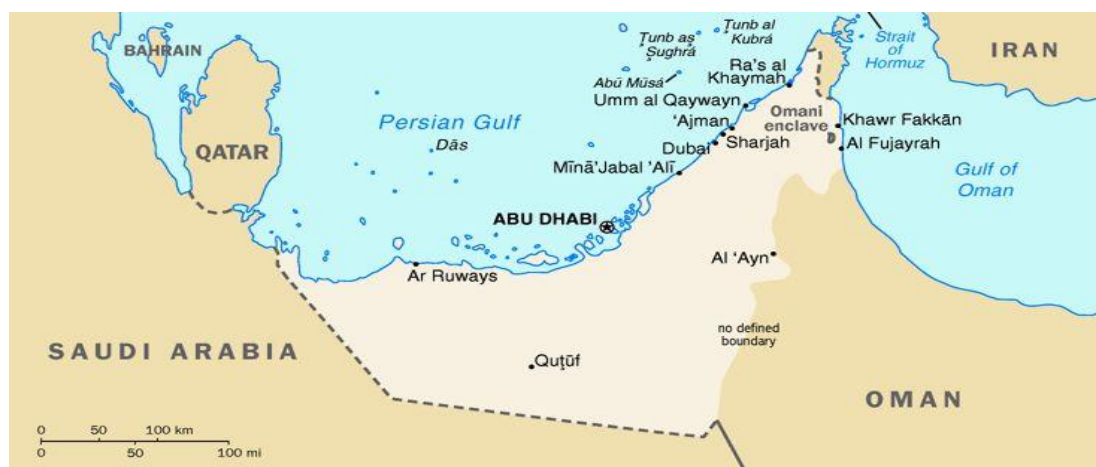
3.1 Introduction

In chapter two, we introduced the global context of higher education and how it may play a part in the dynamics of higher education in developing countries. In this chapter, we shed light on the case study country under investigation, the UAE. In order to discuss the development of higher education in the UAE, we need to first contextualize this in the development of the UAE as a nation. The intention of this chapter is to present the broad history and characteristics of the UAE, and to show the diversity of sources of influence and national institutional arrangements; and to demonstrate their relevance to the research questions of this study.

3.2 The UAE

This section presents a synopsis of the history, the political system, the economy, the population, the culture, and some of the key priorities of the government of the UAE. The UAE is located at the southern part of the Arabian Gulf; it was formerly known as the Trucial States. The federation was established on December 2, 1971. With an area of 83,600 square kilometers, it is an oil producing state and is the only federation of states in the Middle East (Abdullah, 2005).

Figure 1: Map of the United Arab Emirates (UAE)



Prior to the independence from British colonial rule in 1971, the individual sheikhdoms followed the traditional form of Arab monarchy. These inhabitants of

the desert were separated into related tribes ruled by a sheikh. Each sheikh had total power over his subjects. The idea of federation was alien to the Arab way of thinking. The concept of one sheikh ruling a particular territory was introduced by the British (Fenelon, 1976).

Prior to independence, the state of Abu Dhabi made a number of treaties with the British government in the 1800s, limiting the state's autonomy and allowing the UK control over sea routes. The British announced its withdrawal from the Trucial States in 1968. The UAE was formed after independence from the UK in 1971, following the merger of seven emirates (states) ruled by individual tribal sheikhs to create a union within which they could preserve a large degree of local autonomy, while the capital Abu Dhabi would conduct security and foreign policy (Taryam, 1987; Molavi, 2005).

In terms of political structure, the UAE allows no public participation in the political process. Each emirate is ruled by decree, and all ministers are appointed by the ruler(s) (Sherman, 2000). The federal system of government of the UAE includes a supreme council, which comprises: the rulers of the seven emirates; the president, elected by members of the supreme council; the vice president, elected by members of the supreme council; the council of ministers (cabinet) headed by the prime minister, proposed by the president and approved and appointed by the supreme council; and the Federal National Council (parliament), appointed by the prime minister. There is also an independent judiciary system which includes the Federal Supreme Court and the Court of First Instance. The judges are appointed by the supreme council (The Federal National Council, 1997). Each of the emirates has its own system of local government which might vary in size and complexity. The traditional form of government, having roots in Bedouin culture, has an underlying principle that the people should have free access to their sheikhs. On occasion, this tradition is still used, mainly to foster allegiance to the sheikhs and to voice concerns (UAE Interact, 2010).

In 2009 the population of the UAE was estimated to be six million, 70-80 percent of which constitutes expatriates. Arab and Iranian expatriates account for 20 percent of the total population; Dubai has the largest number of expatriates followed by Abu

Dhabi. Europeans and North Americans account for 10 percent of the total population, while south Asians account for about 50 percent of the total population. Proportions have remained the same since 1978. While the official language of the UAE is Arabic, English, Persian, Hindi and Urdu are widely used. The chief religion of the country is Islam as decreed by article 7 in the constitution. Followers of other religions are allowed freedom to worship (Zoepe, 2006; Findlow, 2005).

The economy of the UAE is largely derived from oil. Almost 36 percent of the country's GDP is based on oil (Findlow, 2005). In 2009, the UAE GDP stood at US \$201.4 Billion with a growth of -3.5 percent per annum since 2008 and a per capita income of US \$42,000. According to the world Economic Forum's Global Competitiveness Report of 2007, the UAE's economy is ranked second in the GCC after Saudi Arabia;, third in the Middle East-North Africa (MENA) region; and 38th in the world. There is no income tax in the UAE. The UAE is a member of the Gulf Cooperation Council (GCC), along with Bahrain, Qatar, Oman, Kuwait, and Saudi Arabia. The rulers have sought to diversify the economy so as to reduce its dependence on revenue from oil. Heavy investments have been made in tourism, aviation, aluminum production, commerce, and telecommunication (EIA, 2009). Although Abu Dhabi, the capital, possesses far more natural wealth in the form of oil and gas (10 percent of the world's proven oil reserve), it is less commercially dynamic than Dubai. Dubai is literally a city of luxury with over 270 hotels and 30 shopping malls. With more than five million visitors a year, Dubai is pushing to become a top tourist destination. In addition to the glamour, Dubai free trade zones have attracted international companies, especially from the US such as IBM, Microsoft and CNN, which benefit from the no-taxation policy (Lee, 2005; Molavi, 2005). One of Dubai's main success factors is its ability to avoid the "oil curse". Dubai earns less than 10 percent of its GDP from income from oil, depending largely on trading, tourism, transportation, telecommunication, finance, construction, real estate, and other service industries (Molavi 2005; Euromoney Institutional Investor, 2006).

In terms of culture, the UAE is very much an Arabic and Islamic country. The UAE is historically, politically, culturally and linguistically an Arab country. The UAE is an official member of the Arab League, Islamic Conference and, as already

mentioned, GCC. Both the GCC and the Arab League emphasize their allegiance to Arabism and Islam. The majority of expatriates working in the skilled, professional sectors have for long been Arabs, and more specifically Egyptians. Islam is the official religion according to the constitution. The Arabic and Islamic aspects of UAE nationals are inseparable. UAE rulers emphasize the Islamic basis of their government to identify with the UAE population. Government institutions also emphasize the Arab-Islamic identity such as Emiri Dewan (the Presidential palace) and Majlis Shura (the legislative council. (Findlow, 2005). The UAE has close political and cultural links with other Arab countries and uses a mode of 'rentier' governance (Beblawi, 1987) in which governments obtain the loyalty of citizens by looking after their needs. This has also resulted in an Arabic identity. In the next section, I will look more closely at the western influence before turning to the issue of gender and women in the UAE.

The UAE was under British control between 1820-1970. In 1820 Britain formed a treaty of peace with the principal sheikhs of what was then the Pirate Coast and Bahrain. The purpose of the treaty was to end plundering and piracy and to establish a commitment to desist from the slave trade. The treaty did not come in fruition until 1835 when the sheikhs agreed to a new truce, pursuant to which they agreed to report aggression to British political or naval authorities rather than to retaliate themselves. This truce was renewed several times until May 1853. The truce was supervised by Britain, to whom the signatories reported all violations. In 1892, as France, Germany and Russia were developing an interest in the Gulf region, Britain and the sheikhs of the Trucial Coast signed a new treaty, known as the "Exclusive Agreement" through which the sheikhs agreed not to enter into any agreement or correspondence with any power other than Britain and not to cede, sell or mortgage any part of their territory to anyone other than Britain, without British consent. From this period until independence in 1971, Britain assumed responsibility for their defense and external relations, while the sheikhdoms followed the traditional form of Arab monarchy, i.e., each ruler had virtually absolute power over his subjects.

In fact, the British did not make much effort to control the domestic and commercial activities of these sheikhdoms. As far as the British were concerned, as long as the lines of communication with India were secure, this area was of little strategic or commercial importance. They, therefore, left the rulers to themselves without any

British political agent being appointed until the outbreak of the Second World War. In 1968, the British announced that they would completely withdraw from the Gulf region by the year 1971. The Trucial sheikhdoms were prepared to enter a federation with Abu Dhabi and Dubai as they had the heaviest political weighting, representation and, most importantly of all for the smaller sheikhdoms, the heaviest financial obligations. With this formula the United Arab Emirates was formed in December 1971. (Helen, 1994). Because most UAE nationals followed the traditional form of Arab monarchy for a long time, including the era they spent under the control of the British, the UAE displays a lack of post-colonial resentment compared to many other Arab countries. Unlike directly colonized countries, the isolation of the UAE from the outside world enabled it avoid the problem of authenticity to a degree. Today, with the large number of foreigners living in the country, the UAE seems committed to mix cultures; taking what is desirable from the West and rejecting what is undesirable (Findlow, 2005). This conversation directly leads us to another important point which is “Emiritization”.

Because the UAE is heavily dependent on expatriate workers, the UAE government has a clear policy of “Emiritization”. Emiritization means nationalization, and is concerned with replacing foreign employment with UAE nationals. Emiritization has been a priority of the UAE governments since federation and it has cultural and national dimensions to it as well as as economic ones. The UAE needs to be technically and economically self-sufficient and not rely heavily on expatriates. In 1978, UAE nationals represented 10 per cent of the total UAE work force. Since federation, UAE nationals have been seeking two main categories of employment: either self-employment or employment in the public sector. Recent trends indicate a change toward technical, managerial and professional careers as well (Findlow, 2005). As a result, the UAE government has taken several initiatives to help Emiritaize the workforce, one of these is a UAE national quota of the workforce in both the public and private sectors; another measure is the creation of higher education institutions and programs that can help UAE nationals fulfil certain needs; a third initiative is free higher education for UAE nationals; a fourth initiative is to increase the use of UAE national women, which could also greatly assist with preserving the culture of the UAE. UAE national women now represent more than 60% of the UAE nationals’ population. Although progress has been made, the

success of Emiritization is dubious given the current expatriates work force quota stands at 90 percent. This could be attributed to a number of reasons, one of which is the unpredictability of both market needs and subject popularity, and perhaps some logistical problems within the workforce itself. Since we are talking about Arab women, we should mention that the last few decades have witnessed a fundamental change in the history of Arab women with respect to public life and public participation (Sidani, 2005). Women have made important advances over the past few decades (Gornick, 1990; El-Ghannam, 2002). Women are increasingly entering the workforce in Arab states and rising to leadership positions in the public and private sectors (Salloum, 2003; UNDP, 2002; Al-Lamki, 1999). However, equality of the sexes is still far from being achieved. In the UAE, gender roles have traditionally been controlled by a pre-Islamic Bedouin tribal kinship system. While men move freely, women's action have been more carefully delineated, especially in issues that may seem alien to the UAE conservative culture such as the woman's ability to travel alone, drive, live alone, and solely control marriage arrangements. These local traditions and social customs are often more heeded than religious laws. In fact, it is clear that the majority of social restrictions on Middle Eastern women originate in cultural traditions, such as patriarchy and honor, which are not necessarily in the tenets of Islam (Bowen, et al., 1993). For example, the woman in Islam has the right to choose her husband, however in local UAE traditions and laws, a UAE national female may not marry a non-UAE national without the prior approval of the parents and government. UAE women today, by law, have the right for maternity leave, family leave, and deceased spouse leave (UAE Labor Law, 2010). However, it is not common to find a UAE national female in occupations such as pilot, police officer or engineer. Women are expected to play a bigger role in industries where there is male and female segregation, such as teaching and medicine. Now that I have established the context within which higher education is located, I will now turn to a presentation of the origins and the characteristics of the higher education system in the UAE.

3.3 Higher Education in the UAE

We now turn to the development of higher education. In the early stages of nation-building, the assertion of Arab and Islamic identity was central to the young state and a key aim of the UAE national higher education system (Findlow, 2005). The country's early curricula valorized the Arabic language and the Islamic character of the state. However, the initial support for an Arab national identity through a traditional education model has gradually diminished (Khelifa, 2010). In the last couple of decades, the country has abandoned the Egyptian-influenced education system which was followed since the time of independence from Britain and has instead imported Western curricula in order to build the country's human capacity to compete in a global environment. According to Khelifa (2010) "Despite the UAE government's continued emphasis on Islamic identity and the strong support for education, the Arab-based education system that had been used did not produce the desired development in human capital and failed to build the country's human capacity to meet the new demands introduced by globalization and the diversification of the local economy. And while at the start, the UAE nation-state identity was a central aim for the national higher education system (Findlow, 2005), the new global pressures and the country's quest for modernization and human capital development have rallied in favor of the introduction of Western models of higher education. In fact, the remarkable proliferation of Western-based higher education institutions in the UAE between 1985 and the present reflects the country's openness and a socio-economic transition towards a globally-oriented economy. The recent efforts to reform the UAE higher education system seem to have emanated from a conviction that education and development go hand in hand (Fox, 2008; Talhami, 2000) and that university training should be relevant to national manpower planning and institutional development (Starrett, 2008). A chief policy priority was then to train Emiratis for positions of leadership and other areas of workforce needs. Consequently, for quality assurance reasons, the reformation of the UAE higher education system relied solely on the reproduction of Western models and the expertise of Western academics (Shaw, 1997)".

Since the beginning, the development of higher education in the UAE has been influenced by both Arabic culture and western culture; but with varying proportions overtime. In the 1970s, students wishing to go beyond secondary education were required to go abroad to continue their education, either to neighboring Arab

countries or to the US or the UK, and often with the assistance of the government. In 1977, the UAE University was established to become the first university in the UAE. As the UAE began to modernize during the last century, it sought the help of Egypt for educational advice and personnel (Findlow, 2005). For the first time, all UAE nationals received access to free public higher education (Gaad, 2001). The higher education system in the UAE took a different direction during the 1980s and 1990s. Western consultants and the World Bank played a significant role in reshaping higher education in the UAE (Findlow, 2005). Institutions such as the Higher Colleges of Technology known as HCT and Zayed University were specifically established with the assistance of North American consultants to meet the highest standards required for a federal higher education institution. Even in the private sector, the region's growing demand for internationally recognized undergraduate, postgraduate and career advancement courses and programs has led to a rapid qualitative and quantitative expansion of the education sector across the UAE (Joseph, et al., 2006; Bollag, 2005). In the recent few years, a number of US and other foreign universities have started branch campuses in the UAE and other GCC countries. Some of the names include Middlesex University of the UK, University of Wollongong of Australia, College of North Atlantic of Canada, and Carnegie Mellon University of Pennsylvania, US. Students seeking admission to these institutions experience the same admission requirements, grading curves, textbooks, and even lectures, from the same professors as their foreign counterparts (Joseph, et al., 2006). Local universities such as the American University of Sharjah, which is accredited by the Middle States Commission on Higher Education in the US, have developed the curricula in cooperation with American higher education institutions. In addition, many UAE universities have set up high profile partnerships incorporating sponsorship and actual involvement in the curriculum with overseas higher education institutions. Many of the UAE universities, including Zayed University, have been seeking accreditation from the US. Accreditation is seen as a quick way of obtaining high quality education similar to the one in the US (Findlow, 2005).

As a result of the recent educational reforms both in the public and private arenas in UAE higher education many Emirati youth, unlike their parents' generation, now follow Western curricula delivered in English by Western and Western-educated faculty and are consequently heavily exposed to Western thoughts, ideals, values

and behaviors. In a survey conducted by Khelifa in 2010 in one of the three federal higher education institutions in the UAE, it was reported that UAE national students felt that they increasingly behaved like Westerners and that they were being detached from their native language and culture as a direct result of their exposure to a Western curriculum in higher education. However, the study also reports that UAE nationals do not seem confused about their cultural identity, and they are not torn between cultures and feel they are a comfortable mix of many cultures.

In summary, the current higher education system of the UAE is relatively new and is divided into a public government funded sector and a private sector. The current system can be characterized as encompassing both the elements of a western model as well as traditional socio-cultural elements. The current system of public education is conducted in single gender classes and without expatriates (Gaad, et al., 2006). It is evident that the UAE has made a commitment to higher education, and its goal is to “establish the UAE as a major knowledge-based economy (Chaudhury, 2004). It has already undergone transformation in three important areas: ensuring access, providing choice, and using English as the language of instruction. Now it is beginning a new transformation: emphasizing quality in higher education, improving the preparation and motivation of secondary school students for higher education and self-learning, and ensuring higher education meets the needs of the job market (Wagie and Fox, 2005). There is great consistency in the public universities system due to their similar governance structure, common funding source, faculty profile, and students’ profile. Currently there are three federal higher education institutions under the ministry of higher education and research: United Arab Emirates University (UAEU), established in 1977; Higher College of Technology (HCT), established in 1988; and Zayed University (ZU), established in 1998.

3.3.1 HE Policy, Challenges and Strategic Direction

While higher education in the UAE has successfully transformed itself to provide access, choice, and English language instruction, a number of problems remain that have led to a focus on a new transformation. First, education needs to change from

rote memorization to critical thinking, creativity, and independent learning. Second, the UAE educational system (elementary and secondary) needs to better prepare students in English, science and mathematics for higher education. Third, there should be significant numbers of Emirati teachers in the schools to replace reliance on expatriate teachers and to provide educational motivation for Emirati children. Fourth, higher education needs to prepare students for more technically demanding private sector jobs, as opposed to the historically non-technical public sector jobs (Wagie and Fox, 2005).

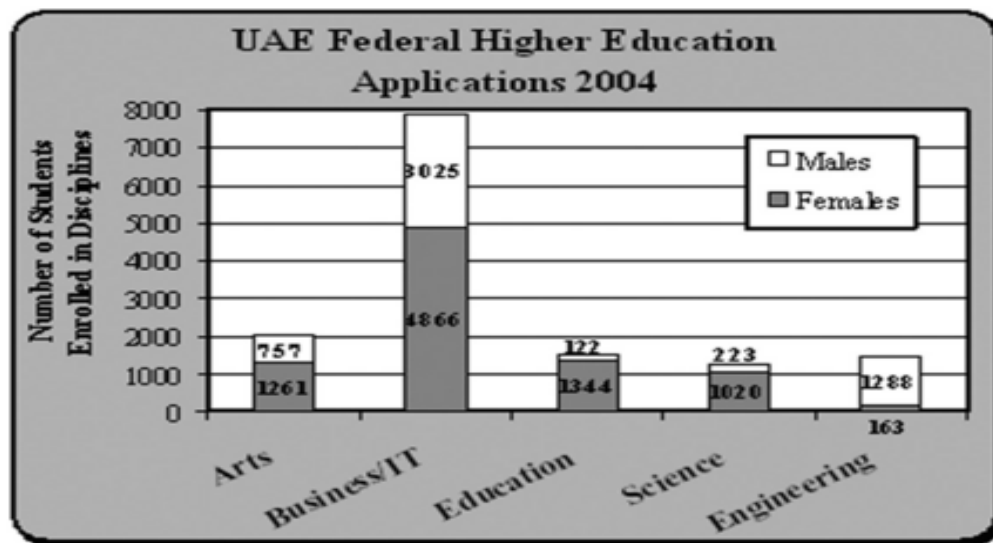
There is little emphasis on science or engineering education and research in the Arab world. In the UAE, for example, although there are 35 licensed higher education institutions (32 non-federal and three federal), only six have accredited engineering programs — and none have science or engineering PhD programs (Wagie and Fox, 2005). In addition, under the current system, and according to the Ministry's statistics, less than five per cent of UAE secondary school graduates are prepared to directly enter college; most need a full year of preparation studies in English, mathematics, and science (often called a foundation year or bridge program). In fact, higher education institutions in the UAE spend 300 million UAE dirhams (\$80 million US dollars) annually on preparatory, foundation and bridge programs. Then, in college, over two-thirds of students choose non-technical majors. The unemployment situation has also added emphasis to this lack of qualified graduates. The public sector has no vacancies for jobs, and while the private sector accounts for 52 percent of the jobs in the UAE, only two percent of these private jobs are held by Emirati. Current unemployment is at 40,000, and another 15,000 enter the workforce each year. This is one of the reasons why the UAE government has directed "Emiritization" quotas on private industry, but finding UAE citizens with the right qualifications has been a challenge (Khaleej Times, 2004).

A 2004 report from the UAE Federal National Council's Committee for Education blamed higher education institutions for rising unemployment and not producing enough graduates with the professional qualifications required of the job market. However, the report also pointed out that the general deterioration in standards of secondary school graduates in mathematics and English made success in

academically demanding higher education fields even more difficult (Jongsma, 2005).

In addition to the above, motivation of male UAE national students has been a challenge. Many male students (20 percent) do not complete high school and another 30 percent who do graduate from secondary school do not take advantage of free higher education. As a result, 95 percent of Emirati women, but less than 50 percent of Emirati males, enroll in higher education. Only a third of the college students major in the technical subjects required by private industry. In addition, the federal institutions are significantly under-funded; the UAE is 38 percent below the average of the GCC countries for overall higher education funding per person, and 60 percent below in research expenditures per person (Rizvi, 2004). This makes it even more difficult to ensure quality and make funds available for the required modernization.

Figure 2: UAE Federal Higher Education Applications 2004



Source: UAE Ministry of Education, National Admissions and Placement Office, "Sept 2004 Applications by Preference of Study," <http://as.napo.hct.ac.ae/stats/>.

Strategic Direction

Article 23 of the UAE constitution recognizes the role of education in national development, and the federal government has pledged that education shall be provided free of charge to UAE nationals at all levels. As a result, all UAE nationals are entitled to attend one of the three federal HEIs if they meet the entry

requirements. The government's commitment to education was demonstrated in 2001 when the largest single allocation of federal funds was for the provision of education for UAE nationals. However, the grants given to the three federal higher education institutions have remained static for many of the years since (Godwin, 2006).

The Ministry of Higher Education and Scientific Research (MOHESR) was established by Federal Law No. (4) in 1992. The Ministry of Higher Education oversees higher education and scientific research policies in the UAE. "The Ministry is responsible for the general planning of higher education and scientific research in the UAE; licensing private institutions of higher education, accrediting their programs and overseeing them to ensure their quality standards within the context of the master plan of higher education; preparing draft laws for the establishment of federal governmental institutions of higher education and scientific research; and achieving coordination and integration between federal institutions of higher education and scientific research in terms of budgets, fields of specialization and academic degrees awarded by each of them. The Ministry is also responsible for coordinating students' admission policies and the criteria for their placement in the various fields of specialization in the UAE higher education institutions in response to the needs of the community; accrediting foreign bodies and institutions of higher education and equalizing their certificates; laying down the general policy of scholarships and academic aid, and following-up their affairs inside and outside the UAE, taking into account the needs of the community and the specializations provided by the higher education institutions in the UAE; and developing scientific research institutions, transferring technologies in the context of developmental requirements of the community, and coordinating between higher education and scientific research bodies and institutions on the one hand, and public education on the other.

The Ministry also performs any other responsibilities entrusted to it pursuant to any laws and regulations" (MOHESR, 2012).

The broad goals of the UAE Ministry of Higher Education are:

- Providing opportunities for UAE nationals to join the best universities in the world through the scholarships program.
- Improving the higher education performance level in the country.
- Improving the effectiveness and efficiency of the private higher education institutions in UAE.
- Continuously improving the certificates equivalence system in accordance with the international academic standards.
- Supporting scientific research and encouraging innovation.
- Improving the central managerial services performance according to quality, efficiency and transparency standards.

The Ministry has also established three strategic goals for higher education in the next few years. These goals are: 1) assuring quality education, both in K-12 for college preparation, and in higher education institutions and programs through licensing and accreditation; 2) sustaining the UAE economy through preparing graduates for private employment and encouraging research relevant to UAE needs; and 3) enrolling all Emirati secondary school graduates into quality higher education programs (La Voy, 2005). The UAE has already put in place a number of actions to support this new transformation. In 1996, the Ministry of Higher Education and Scientific Research created a National Admissions and Placement Office, to help Emirati nationals qualify for and attend higher education institutions; in 1999 the Commission for Academic Accreditation was created to oversee the quality, licensing and accreditation of the rapidly expanding number of non-federal higher education institutions in the UAE; and in 2004 the Office of Higher Education Policy and Planning was created to oversee the strategic planning and coordination of UAE higher education programs and institutions. Then, in November 2004, the previous Ministry of Education and Youth and the previous Ministry of Higher Education and Scientific Research were merged into a single new Ministry of Education (MoE).

The UAE has also introduced a number of changes in the primary school curriculum, and is conducting a test project on teaching science and mathematics in English in first and second grades (i.e. to children aged 6-8). In secondary school,

the UAE has stopped allowing students to choose an “arts” track (versus a “science” track) in 11th and 12th grades — instead all students now have to take a college preparatory curriculum that includes mathematics and science. In higher education, there has been a growing interaction between UAE higher education institutions and institutions from abroad (US, UK, India, Europe, Australia), private industry, and the military — as each moves to expand and improve its higher education programs. In addition, under the explicit direction of the Deputy Supreme Commander of the UAE Armed Forces, the military is now implementing a plan to provide and require a baccalaureate education for all officer candidates before they are commissioned (currently that is not required). To increase the technical level of higher education, the UAE leadership has begun to expand its research capacity and plan for science and engineering doctoral programs (Wagie and Fox, 2005).

MAYTHA DO YOU NEED A SECTION SOMEWHERE IN THIS CHAPTER ON GOVERNANCE, ON TOP DOWN CONTROL ETC WHICH YOU HAVE IN YOUR INTRODUCTION ???

3.3.2 Higher Education Institutions

The UAE has established a diversified system of higher education in a relatively short period of time. The UAE has one of the highest higher education enrolment rates in the world. Ninety-five per cent of all females and 80 per cent of all males who are enrolled in the final year of secondary school apply for admission to a higher education institution or to study abroad. Table 4 below includes a list of many of the higher education institutions currently existing in the UAE. A brief characterization of the three federal universities in the UAE is provided after that.

Table 4: List of Higher Education Institutions in the UAE

No	Higher Education institution	No	Higher Education institution
1	<u>ABU DHABI UNIVERSITY</u>	36	<u>IMAM MALIK COLLEGE FOR ISLAMIC SHARIA AND LAW</u>
2	<u>AJMAN UNIVERSITY OF SCIENCE AND TECHNOLOGY</u>	37	<u>INSEAD- THE BUSINESS SCHOOL FOR THE WORLD, ABU DHABI</u>
3	<u>AL AIN INTERNATIONAL AVIATION ACADEMY</u>	38	<u>INSTITUTE OF MANAGEMENT TECHNOLOGY-DUBAI</u>
4	<u>AL AIN UNIVERSITY OF SCIENCE & TECHNOLOGY</u>	39	<u>ISLAMIC AND ARABIC STUDIES COLLEGE-DUBAI</u>
5	<u>AL GHURAIR UNIVERSITY</u>	40	<u>ITTIHAD UNIVERSITY</u>
6	<u>AL HOSN UNIVERSITY</u>	41	<u>KHALIFA BIN ZAYED AIR COLLEGE</u>
7	<u>AL KHAWARIZMI INTERNATIONAL COLLEGE</u>	42	<u>KHALIFA UNIVERSITY OF SCIENCE, TECHNOLOGY AND RESEARCH</u>
8	<u>AMERICAN COLLEGE OF DUBAI</u>	43	<u>MASDAR INSTITUTE OF SCIENCE AND TECHNOLOGY</u>
9	<u>AMERICAN UNIVERSITY IN DUBAI</u>	44	<u>MICHIGAN STATE UNIVERSITY</u>
10	<u>AMERICAN UNIVERSITY IN THE EMIRATES</u>	45	<u>NAVAL COLLEGE</u>
11	<u>AMERICAN UNIVERSITY OF RAS AL KHAIMAH</u>	46	<u>NEW YORK INSTITUTE OF TECHNOLOGY</u>
12	<u>AMERICAN UNIVERSITY OF SHARJAH</u>	47	<u>NEW YORK UNIVERSITY</u>
13	<u>BIOTECHNOLOGY UNIVERSITY COLLEGE</u>	48	<u>NICOLAS & ASP UNIVERSITY COLLEGE</u>
14	<u>BOSTON UNIVERSITY INSTITUTE FOR DENTAL RESEARCH & EDUCATION</u>	49	<u>PARIS SORBONNE UNIVERSITY, ABU DHABI</u>
15	<u>BRITISH UNIVERSITY IN DUBAI</u>	50	<u>PETROLEUM INSTITUTE</u>
16	<u>CANADIAN UNIVERSITY OF DUBAI</u>	51	<u>POLICE COLLEGE, ABU DHABI</u>
17	<u>COMPUTER COLLEGE</u>	52	<u>POLICE SCIENCES ACADEMY-SHARJAH</u>
18	<u>DUBAI MEDICAL COLLEGE FOR GIRLS</u>	53	<u>RAS AL KHAIMAH MEDICAL AND HEALTH SCIENCES UNIVERSITY</u>
19	<u>DUBAI PHARMACY COLLEGE</u>	54	<u>ROCHESTER INSTITUTE OF TECHNOLOGY- DUBAI</u>
20	<u>DUBAI POLICE ACADEMY</u>	55	<u>ROYAL COLLEGE OF SURGEONS IN IRELAND- DUBAI</u>
21	<u>DUBAI SCHOOL OF GOVERNMENT</u>	56	<u>SKYLINE UNIVERSITY COLLEGE</u>
22	<u>EMIRATES ACADEMY OF HOSPITALITY MANAGEMENT</u>	57	<u>SYSCOMS COLLEGE</u>

23	<u>EMIRATES AVIATION COLLEGE</u>	58	<u>THE LOGISTICS ACADEMY</u>
24	<u>EMIRATES CANADIAN UNIVERSITY</u>	59	<u>TUFTS UNIVERSITY FRIEDMAN SCHOOL- RAK</u>
25	<u>EMIRATES COLLEGE FOR MANAGEMENT AND INFORMATION TECHNOLOGY</u>	60	<u>UNITED ARAB EMIRATES UNIVERSITY</u>
26	<u>EMIRATES COLLEGE OF TECHNOLOGY</u>	61	<u>UNIVERSITY COLLEGE OF MOTHER AND FAMILY SCIENCES</u>
27	<u>EMIRATES INSTITUTE FOR BANKING AND FINANCIAL STUDIES</u>	62	<u>UNIVERSITY OF DUBAI</u>
28	<u>EUROPEAN INTERNATIONAL COLLEGE</u>	63	<u>UNIVERSITY OF JAZEERA</u>
29	<u>FATIMA COLLEGE OF HEALTH SCIENCES</u>	64	<u>UNIVERSITY OF SHARJAH</u>
30	<u>FUJAIRAH COLLEGE</u>	65	<u>UNIVERSITY OF STRATHCLYDE BUSINESS SCHOOL- UAE</u>
31	<u>FUJAIRAH NATIONAL UNIVERSITY</u>	66	<u>UNIVERSITY OF WOLLONGONG IN DUBAI</u>
32	<u>GULF MEDICAL UNIVERSITY</u>	67	<u>VOCATIONAL EDUCATION AND TRAINING INSTITUTE, ABU DHABI</u>
33	<u>HAMDAN BIN MOHAMMED E- UNIVERSITY</u>	68	<u>VOCATIONAL EDUCATION DEVELOPMENT CENTER</u>
34	<u>HIGHER COLLEGES OF TECHNOLOGY</u>	69	<u>ZAYED UNIVERSITY</u>
35	<u>HORIZON INTERNATIONAL FLIGHT ACADEMY, AL AIN</u>		

Source: (COMMISSION FOR ACADEMIC ACCREDITATION, 2010)

The United Arab Emirates University (UAEU): The first federal higher education in the UAE was established in 1977. It had a population of 502 students (313 male and 189 female) in the academic year 1977/1978 which grew to nearly 12,251 in 2009 (2,874 male and 9,377 female). The university offers a wide range of programs including Humanities and Social Sciences, Sciences, Education, Business and Economics, Law, Food and Agriculture, Medicine and Health Sciences, Engineering, and Information Technology. In the academic year 1977/1978, the University began with four colleges known then as the Faculty of Arts, the Faculty of Sciences, the Faculty of Education, and the Faculty of Administrative and Political Sciences. The Faculty of Shari'ah and Law were established in 1978. In 1980, the Faculty of Agricultural Sciences and the College of Engineering were established. The post of the Dean of Graduate Studies and Scientific Research and

Publishing was introduced in 1981. Finally, the Faculty of Medicine and Health Sciences was established in 1986. The first Master's Degree Program was established in Environmental Sciences in the Faculty of Sciences in 1991. In 2009, the UAEU launched the first PhD program at a national university in the United Arab Emirates. The PhD program model follows an American model, which involves one year of course work to be followed by research and the writing of a dissertation over a further two to three year period (UAEU Website, 2010).

Higher College of Technology (HCT): The second federal higher education institution in the UAE, established in 1988 with four campuses, HCT now includes 16 men's and women's campuses located throughout the UAE with a population of 16,000 students for the year of 2009. It offers over 80 technically oriented programs at diploma, higher diploma, Bachelor and Master's levels. In some programs, students have the opportunity to progress to a bachelor's degree after completing the higher diploma. HCT has shifted from the four founding campuses with an enrolment of 230 students (110 males and 120 female) to 16 campuses offering a diversity of programs to over 16,000 students (6,000 male and 10,000 female). The female student population accounts for around 62 percent of all current students. (HCT Website, 2010).

Zayed University: The third federal higher education institution in the UAE was established in 1998 to educate UAE National women only. At the start the university had two campuses, one in Abu Dhabi and another in Dubai, with a single administration based in Dubai. In February 2008, the University opened its Sweihan campus, which was a collaboration between Zayed University and the Armed Forces of UAE to establish a baccalaureate academic program for the Armed Forces cadets. The university now has three campuses catering for both national and international students:

- ☐ Abu Dhabi South Campus (Female Only)
- ☐ Abu Dhabi North Campus (Male Only)
- ☐ Dubai Al-Ruwayyah Campus (for both male and female but with different schedule/timetables for each gender).

In 2009 total enrollment was 3,000 students, of which 400 were males and 2,600 females. The university offers bachelor degrees in Arts and Sciences, Business, Education, IT and Media. It also offers a number of master's programs. (ZU,2010).

3.3.3 Internationalization and UAE Cultural Considerations

In order to contextualize the UAE and its higher education system, it is important that one understand the demographic and the history of the nation. As we have stated before, the population of the UAE is about 4 million, 25 percent of which are UAE nationals. 250, 000 are school children between k-12, 15,000 in HCT, 16,000 in UAEU, 3,000 in ZU, and 5,000 in private universities. The legal system in the UAE is based on Sharia law. Sharia law is derived from the holy book of Islam (The Quran), and the Sunnah (Acts of the Prophets) as well as other Islamic scriptures. (Zoubir 1999, Hamade 2011). While at first glance the UAE with its high-rise buildings and large number of expatriates may give the false impression of a newly founded nation with no cultural roots, it is actually quite the opposite. The UAE has a long cultural and history that goes back centuries and is heavily influenced by tribal, Arab, and Islamic traditions (AL-Khazaraji, 2009).

The people in the UAE are more accustomed to deal with what is viewed in the West as inequality and different amount of power between people. This typically creates a hierarchical system (Hofstede 1997). The Arab culture is hierarchical (Riel 2010). And while the Individualism index is higher in the Western culture, collectivism is more dominant in the Arab world (like in the UAE). In other words, the role of the state in the collective culture is more important than the role of the individual (Hofstede 1997). In a masculine culture like in the UAE, men are expected to get an education and a career, while many women are raised with the sole goal of being married. After marriage, a woman's primary role is to bear and raise children. Women, especially mothers are revered in the Arab culture. However, fathers are seen as the prime authority figure in the family structure (Hadid, 2013). UAE nationals also view time as cyclical. They are more interested in preserving the past than in changing the future (Riel 2010;Hadid, 2013).

Similar to other Arab nations, the role of extended family and the meaning of honor are key elements of the culture (Hadid, 2013). There are strong gender-related roles in a family in which men and women may be viewed as not equal. Mixing of genders is not appropriate, unless they are relatives (Käri-Zein 2003). Foreigners in the UAE are expected to dress modestly (Hadid, 2013; (Richardson, 2004).

According to Heard-Bey (1997), the familial bonds and alliances, is the most important indicators of status in society in the UAE. That structure is evident not only in the society, but also in the governance structure in the UAE. The rulers of the UAE today come from families that hold power among the tribal community. According to Caesar (2003), the effects of the globalization and western style consumerism are superficial among locals given the strong historical attachments to their cultural and traditional heritage. Caesar states “students could carry cell phones and wear baseball caps without feeling that their culture was threatened because of a strong sense of identity that came from family, religion, and tribe.” In fact, Caesar argues that modernization, commercialism, and global culture have together created unique achievements in the Persian Gulf. UAE nationals seem to have adopted a limited acceptance of commercialism but have maintained their societal norms due to their strong attachments and bonds to a historical sense of traditional family values that have been predicated on a tribal system (AL-Khazaraji, 2009). And while Hurreiz (2002) concedes that some traditional concepts and values in the UAE have changed due to the economic and commercial boom the wealth of the UAE, core values and traditions have not changed, especially in those areas surrounding the immensely private dealings with family, children, birth, death and burial, and marriage.

The UAE family structure and culture has not been influenced as much by the commercial pressures of globalization (Hurreiz, 2002). Some argue that the opposite has taken place, and In fact, there is now a growing tendency toward nationalism, particularly due to the large dependency on foreigners. UAE nationals feel as though their identities are being threatened by the growing global presence in their society. Even more, globalization has been unable to influence or alter even the traditional political landscape of the UAE (Godwin, 2006).

The region's growing demand for internationally recognized undergraduate, post-graduate and career advancement courses and programs, has led to a rapid qualitative and quantitative expansion of the education sector across not just the UAE but the Gulf Cooperation Council (GCC) and the Middle East (Joseph, et al., 2006; Bollag, et al., 2005). In the recent few years, a number of US and foreign universities have opened branch campuses, and many local institutions now follow the US system of education and have established affiliations with US universities. Business, Management and computing programs are the leading fields of study. The UK Middlesex University and the Australian University of Wollongong are a couple of examples of foreign universities which now have bases in the UAE. Several UAE universities, including federal institutions such as Zayed University and UAEU, have been seeking accreditation from US accrediting bodies.

While thousands of male students from the UAE go to universities abroad, large numbers of females are enrolled in local universities. Female students are still very rarely permitted by their families to go abroad for university study, thereby making local study their first and sometimes only option (Mani, et al., 2006). In the field of higher education, women have accounted for more than 70 percent of university places. Such access is providing women with the means to gain independence and to take their place in the work force. Cultural considerations are a significant factor in the UAE higher education system. For example, using the Internet can create cultural misunderstanding and possibly offend some students if they are exposed to culturally inappropriate material (Joo, 1999). Female students often don't like to reveal their full names or display a photo on a web page (Kayser, 2002). The number of female students joining IT degrees is proportionately low because most of the women in the IT workforce want to serve in administrative positions and also because they are less likely to return to the workforce after child birth or other reasons. Degrees in education are a common first choice for female students. Graduates from elementary schools who are likely to work after graduating are segregated, thereby ensuring that women have no direct contact with men in the work place (Zoepe, 2006).

3.3.4 Students, Participation and Access

Gender access to higher education has improved significantly in recent years. In 1976 the UAE had only one institution and education was offered to men and women in separate campuses. Since 2009 access is available in male-only, female-only and gender-mixed campuses in a number of universities.. Public institutions have separate campuses for male and female students. Most private universities have both male and female students in the same campus. Table 5 shows the change between the academic years 1977 and 2009 in terms of gender access to higher education. Similarly, in 1976 only one institution offered higher education almost solely to UAE nationals; in 2009 both UAE nationals and foreign nationals have access to higher education in the UAE. Figure 3 shows the change in access to higher education based on gender and figure 4 shows the change in access to higher education in the UAE based on nationality between 1976 – 2009.

Table 5: Enrolment statistics on higher education institutions for the years 1977- 2009

Academic Year	UAE University			HCT Colleges			Zayed University		
	male	female	Total	male	female	Total	male	female	Total
1977 - 1978	313	189	502	-	-	-	-	-	-
1988 - 1989	2,538	4,685	7,223	110	120	230	-	-	-
1998 -1999	3,558	11,950	15,506	584	959	1,543	0	1,567	1,567
2008 - 2009	2,874	9,377	12,251	6,000	10,000	16,000	400	2600	3,000

Figure 3: Campus/Gender of Higher Education Students.

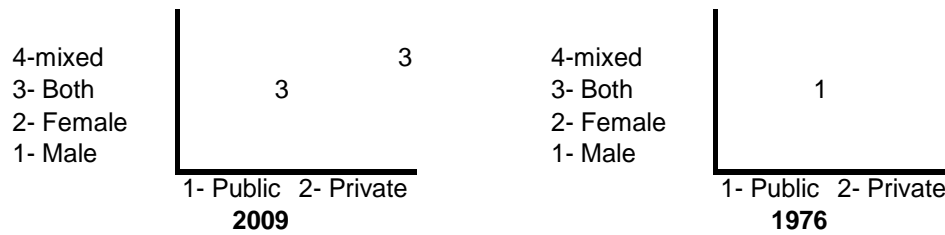
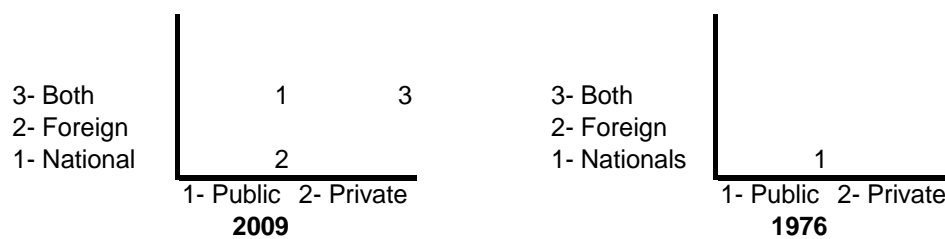


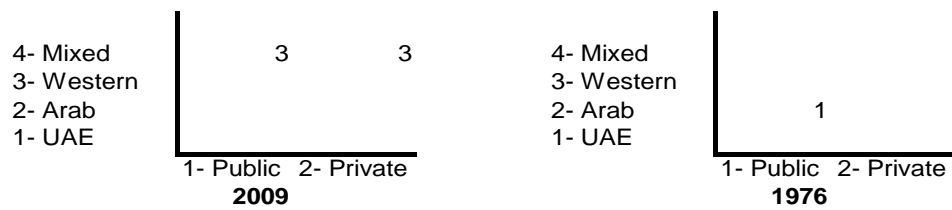
Figure 4: Student nationality in Higher Education



3.3.5 Faculty

The model of higher education in the UAE has changed radically in the past forty years, as has the profile of higher education faculty.. As mentioned earlier, in 1976 the only higher education institution in the UAE relied on Arab faculty, mainly from Egypt, Iraq and Lebanon. Today, with the implementation of the American model of higher education in both the public and private institutions, most faculty members are native-English speaking, mainly from the USA, Canada, UK and Australia. The exception to this is for degrees and courses concerned with the Arabic language and religious studies. In most cases, individual faculties do not develop the curricula. Because of the accreditation process, the development of curricula usually goes through a process of consideration and approval by a number of committees to ensure compliance. Gender is not an issue when it comes to teaching. In many cases, male instructors teach female students and vice versa. The figure below shows the change in the faculty profile between 1976 and 2009. A detailed profile of faculty in each of the examined federal higher education institution can be found in the case study chapter.

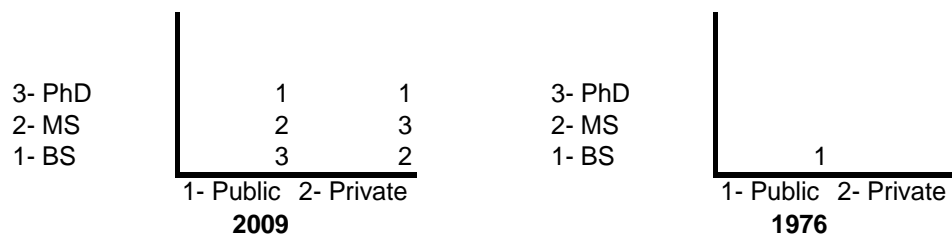
Figure 5: Profile of Higher Education teaching faculty



3.3.6 Curriculum and Languages

At the federal level UAEU, HCT and ZU offer a wide range of undergraduate and postgraduate degrees. The main language of instruction is English, with the exception of degrees that relate to the Arabic language or Islamic studies. The type of degree plays a major role in deciding the language of instruction as well. For example, the School of Medicine uses English as the main language of instruction, while the School of Law uses Arabic in many courses because of their relevance to the constitution of the UAE, which is written in Arabic. In most cases, and for most degrees, English is the main language of instruction, including Business, Technology, Media, Arts and Sciences, etc. Some of the general education courses that are concerned with UAE culture and UAE society are developed by the ministry of higher education and are taught in English with no restriction on who can teach them. A detailed profile of all degrees offered by the case study institutions is available in the case study chapter. Figure-6 shows access to higher education degrees between 1976 - 2009.

Figure 6: Degrees offered in UAE higher education institution

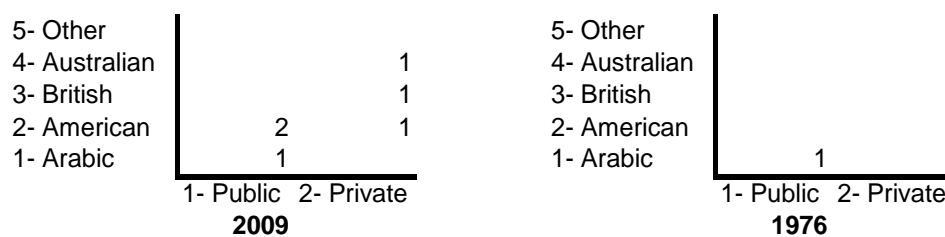


3.3.7 Higher Education Models

The current UAE higher education system is based on a variety of higher education models. For example, at the public level Zayed University offers a curriculum based on the North American model (ZU Website, 2010), while the UAE University is based on a hybrid Arabic-English based higher education model (UAEU Website, 2010).

Unsurprisingly, at the private level, the American University of Sharjah is based on a North American higher education model (AUS website, 2010) and the University of Wollongong offers an Australian-based model of higher education (UOW Website, 2010). Similarly, the British University in Dubai is based on a British model (Buid Web site, 2010). Figure-7 shows the change in higher education models between 1976 - 2009. While in 1976 only one public institution offered an Arabic-based higher education model, in 2006 Arabic, American, British and Australian higher education models were offered by different public and private UAE universities.

Figure 7: Higher Education Model



3.4 Conclusion

This chapter set out to discuss the development of higher education in the UAE and to present its broad history and characteristics, in addition to showing the diversity of sources of influence on the system, particularly Arabic and Western, on national

institutional arrangements. Thus, the chapter covers the key areas that concern the main research questions of this study.

The chapter started with an overview of the UAE as a national case, explaining the history, political structure, geography, economy, culture, and other important factors that have had an influence on the UAE. Special emphasis was given to the mixed cultural dimension of the UAE, including the era of 1820-1970 when the UAE was under British control, to explain the influence of both the Arab and Western cultures on the UAE and the development of its higher education system over the years. The influence and the need for “Emiritization” were also explained. The chapter also covered the development of higher education in the UAE starting from the inception of the state in 1970 up to now. A lengthy discussion of the policies, challenges and strategic direction of higher education in the UAE was presented, along with a presentation of the key higher education institutions and the profiles of their students, faculty, curriculum, and teaching models. This information is necessary in order to understand the characteristics of the higher education system in the UAE and the main factors that have influenced those characteristics. The table below presents in summary form some of the main characteristics of the higher education system

Table 6: Different public and private universities offer different higher education models

Name of University	HE Model	Teaching Faculty	Student Gender	Student Nationality	HEI Type	HEI Size/ Population
Zayed University	North American	Western/Arab	Female	UAE	Public	4000
UAEU	English-Arabic	Western/Arab	Male-Female /Separate	UAE	Public	25000
HCT	North American	Western/Arab	Male-Female /Separate	UAE	Public	25000
AUS	North American	Western/Arab	Male-Female /Combined	UAE+Foreign	Private	4000
The British University	British	Western/Arab	Male-Female /Combined	UAE+Foreign	Private	2000
Wollongong University	Australian	Western/Arab	Male-Female /Combined	UAE+Foreign	Private	2000

Chapter Four - Research Methodology

4.1 Introduction

This chapter sets out the context of the study and its research questions, their bearing on the methodological approach taken, how this shaped the design of the study, and why particular research methods were selected. The chapter introduces the theoretical background to the research methodologies relevant to this study. In particular, it provides justification for the use of the case study approach, and outlines the research design and methodology upon which this study was based. The chapters also discusses the rationale behind its selection, while explaining the process of its implementation. In addition, this chapter presents data collection instruments and the justification of selecting them, and some of the problems that were encountered during field work.

Research is described as a “systematic investigation to establish facts or principles or to collect information on a subject” (Wilkes and Krebs 1995). Pollard and Liebeck (1994) define research as “careful study and investigation with the purpose to discover new facts or information”. Yin (2003) describes the research design as “a logical plan for getting from here to there, where here may be defined as the initial set of questions to be answered, and there is some set of conclusions (answers) to these questions”. Research studies can be either exploratory in nature, descriptive, or they can be conducted to test hypothesis about a situation. An exploratory study is usually conducted when no or little information is available. A descriptive study is usually conducted in order to ascertain and describe the characteristics of the variables of interest in a situation. Hypothesis testing studies usually explain the nature of a certain relationships (Sekaran, 2000).

When considering the theoretical framework surrounding the empirical work of this study, a key consideration was how reality would be defined within the context of

the subject being investigated, and how to utilize a design strategy that would yield useful information.

A qualitative approach was chosen to allow the researcher the greatest opportunity to include the contextual aspects of the environment and its participants, and to explore emerging themes holistically. A critical realist position was adopted as it recognizes the importance of causation, accepting that there is a real world that exists independently of the individual and it is possible to learn more of this reality. Since no detailed research has been conducted on the public higher education system of the UAE, the design of this research was exploratory in nature. The research is based on a case study approach to allow the researcher to focus on a unique and single cultural environment” (Stake as cited in Denzin & Lincoln, 2000). Since the research is an evaluative piece of work which involves description, explanation and judgment (Merriam, 1998), a case study approach was considered the most appropriate within a university context. In addition, the case study methodology is not restricted to a specific data collection instrument or data analysis approach (Merriam, 1998). It also provides a variety of participant perspectives and allows for the use of multiple data collection techniques.

4.2 Research Purpose

This research conducted an exploratory study to validate the applicability of global higher education policies and values in the context of a uniquely-characterized developing country, namely the United Arab Emirates (UAE), and to understand the characteristics of the higher education model adopted by public institutions in the UAE. No significant study has been reported previously in the case of the UAE public higher education model. Moreover, many of the existing studies seem to overlook in their majority the socio-cultural and organizational aspects of higher education. This research investigated various issues related to higher education, including the socio-cultural and organizational aspects of the UAE. The research questions addressed in this study are not only significant to the three UAE federal higher education institutions, but they also address some key issues that are especially sensitive yet similarly applicable to the context and educational needs of

the institutions across the public sector of the greater Middle Eastern region and other similar developing countries.

4.3 Research Aim and Objectives

There is no shortage of research and study materials available on the different models of higher education. There is, however, a shortage of thorough and realistic studies and analysis that can provide useful and relevant comparative data for existing higher education models in developing countries. Within the context of international higher education in general, and the context of the three federal institutions of higher education within the UAE, this research aimed to explore the case of federal higher education in the UAE and examined the main characteristics of the higher education model adopted initially by Zayed University and consequently by the United Arab Emirates University (UAEU) and the Higher Colleges of Technology (HCT), and compare it to those of developed countries.

As indicated previously Higher education in the UAE is witnessing a transformation process from an Arabic-based higher education system that has been there for decades to an American-Like system with English being used as the language of instruction. This transformation requires the institutionalization of new policies, values, and frameworks that are more applicable to the North American higher education model. These deinstitutionalization and institutionalization processes entail more or less strong resistances, conflicts, tensions in many areas such as autonomy, innovation, and governance.

In general, this research seeks to understand the relationship between the culture of UAE federal higher education in relation to Emirati and Western, particularly North American culture and practices. The research uses world polity theory to seek to illuminate this relationship and uses a mixed method approach to the fieldwork in elucidating these relationships. specifically, this research aims to explore the emergence and development of a new federal higher education sector in the UAE represented by the case of the three federal universities - UAEU, HCT and ZU, and seeks to identify the main characteristics of the new higher education profile and the

extent to which it draws on western and indigenous models and principles, and to validate the universality of higher education values and norms across cultures and boundaries.

1. What are the main characteristics of the new federal UAE higher education model, and what is the rationale behind its emergence?
2. Using the lenses of World Polity theory, to what degree have the UAE federal higher education institutions drawn on the globally dominant American model, particularly in relation to staffing, student constituency, funding, curriculum development, pedagogical strategies, governance and policies?

4.4 Research Methodology

Research methodologies inform the reader of how the research was undertaken and how the data was collected. Although various classifications and a broad set of research methodologies are identified in the literature, the majority of researchers including Cohen & Manion, 2000; Creswell, 2002; Olivier, 2004, Myers, 1997, make a clear distinction between quantitative and qualitative research methodologies.

While quantitative research methods are associated with natural sciences intended to investigate natural phenomena, qualitative research methods are associated with non-scientific study intended to investigate social and cultural issues. According to Stake (1995), the difference between quantitative and qualitative methods is linked to two kinds of research questions. In quantitative studies the research question seeks out a relationship between a small number of variables, whereas in qualitative studies the research question seeks out cases or phenomena, looking for patterns of unanticipated as well as expected relationships. The qualitative method has a number of strengths that create a framework for the investigation of the research questions.

The approach has a stance of methodological individualism, describing processes rather than structures (Van Maanen 1979; Gergen and Gergen, 2000), which enables a focus on the underlying reasons for events.

Qualitative research is not always easy to define. However, the literature puts forward several features within a context that is commonly recognized. Studies are undertaken in a natural setting where the researcher is an instrument to gather data, performing inductive analysis that focuses on meaning making by the participants with outcomes that are based on interpretation (Miles and Huberman 1994; Denzin and Lincoln 2000; Gergen and Gergen, 2000). Miles (1979) describes the process as a flow of information that is holistic, rich and chronological. Furthermore, there is an established history and tradition of qualitative approaches within management research (Cassell, Symon et al. 2006). A weakness of the qualitative approach is that methods of analysis are not well formulated (Miles, 1979). However, since this argument was put forward, the position is changing due to more robust methods for qualitative methodology being developed. Qualitative researchers stress the role of values and social elements within reality and the close relationship between the researcher and what is studied to establish how experience is created and given meaning. Reflection by the researcher is critical to the qualitative approach, enabling adaptation of the method as insight is gained. As illustrated later, the interviews, documentation and the observation of the researcher for this study were able to capture the reflections and decision making of the different stakeholders of the UAE federal higher education system in their normal settings. The qualitative method accommodates a large number of variables and, therefore, can fully reflect the complexity of higher education institutions.

In order to capture the complexity of the case study institutions through the research questions formulated for this study, the qualitative approach seemed most appropriate. By understanding the institutions well, it was possible to generalize on the basis of analytical deduction and detailed insight into a few representative cases, rather than generalization based on the numerical representation of a large sample size.

Orlikowski and Baroudi (1991) and Trauth (2001), determined three philosophical perspectives to research methodologies: 'positivist perspective', 'interpretive or constructionist', and 'critical theory perspective'.

In a **positivist** approach, reality is viewed within an objective context and could be represented in measurable components. If one can perceive something, that means it is real (Codd, 1988). Assumptions and hypothesis are developed with the requirement in order to be validated. The researcher is independent of the subject under study. This enables replication of the study to different subjects, and draw inferences and comparisons (Orlikowski et al, 1991). In an interpretive approach, the research the phenomena could be interpreted within the given reality or socially constructed reality with no predefined variable. If things are meaningful, they can be real (Kaboob, 2001). The **critical** approach focuses on contradictions within the contemporary society and attempts to look beyond the limitations of the positivist and the interpretive approaches. Critical researchers acknowledge people can be involved in changing their social circumstances but , are confined by various forms of status quo conditions. Although some of the researchers freely exchange the term(s) quantitative and qualitative for positivism and interpretivism (Pather and Remenyi, 2004), it should be noted at this point that 'quantitative' is not a synonym for 'positivist' philosophy, or 'qualitative' is not a synonym for 'interpretive'. Qualitative research may or may not be interpretive. The choice of a research method should be independent from the philosophical stand of the researcher. Cook & Reichardt (1982) and Patton (1987) also suggest that researchers or evaluators should feel free to change their paradigmatic stance as the need arises. They also suggest that methodology is best understood as an overall strategy for the resolution of choices that researchers encounter. According to (Galliers, 1994), there are seven types of positivism approaches and five types of the interpretivism approach.

4.5 Research Design

The topic of management of higher education has been researched using both quantitative and qualitative research designs. This allowed the researcher some choice as to the most appropriate design to adopt. Creswell (1998) affirms that the

choice of a research framework should be guided by the problem to be researched. The issue of management of higher education in the literature has been shown to be a complex and multifaceted phenomenon.

In addition, elements of this study's research questions involve exploring a dynamic and unstable environment in guiding the researcher on choosing either a qualitative or quantitative study. Creswell (1998) advises that a qualitative study is best used when the topic needs to be explored, when variables are not easily identified and themes are not available to explain behaviors of the participants. Further, Bryman (2008) concludes that a qualitative strategy of constructivism and interpretivism is recommended when "emphasis will be placed on the active involvement of people in reality construction". In this study, both qualitative and quantitative research paradigms were chosen, with more emphasis on the qualitative paradigm. Quantitative data collection in the form of surveys was extended to a number of participants to allow for a considerable yet diverse amount of feedback, while qualitative data in the form of observation, documentation review and interviews with key decision makers was gathered to obtain an in-depth look at the opinions of decision makers regarding higher education in the UAE. The quantitative research paradigm was chosen because of the greater access it allows to participants, the low cost involved, and the significant amount of data and feedback it provides. The qualitative research paradigm was chosen because of the basic philosophical assumption that people, their experience, their behavior especially when stemming from cultural conceptions, play a major role in this study. Qualitative research also through close observation and examination places emphasis on developing knowledge and understanding, and also assists with finding patterns that emerge within the study. An interpretivist stance is chosen to provide focus and structure throughout all phases of the research and data collection (Denzin et al, 2000; Myers, 1997; Orlikowski et al, 1991). An Interpretivist approach is more appropriate when the researcher is not independent of the study.

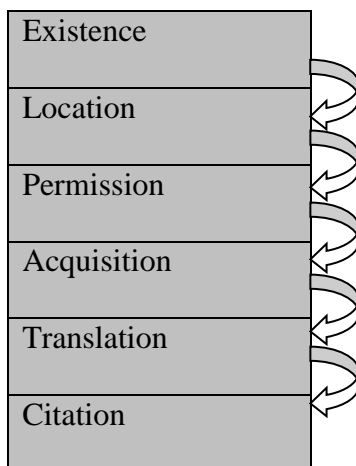
The researcher reflexivity plays a role in this research study since the researcher is a UAE national and works in one of the three case study institutions. In addition, the research in place is aimed at understanding people in their worlds - students, faculty and administrators in the universities - not in the artificial world of a laboratory. The world in this case study does not independently exist of humans (Briony, 2006).

The case study research focused on nine main themes collected from the literature of each of the universities, as follows:

- vision, mission, and goals;
- faculty profiles;
- student profiles;
- administration and systems profiles;
- funding forms;
- curricula and teaching profile;
- research profile;
- governance, regulations, by-laws, and policies;
- cultural profile.

It is important to note that the researcher face many challenges in obtaining access to national documentation. The following figure shows the cycle encountered when seeking access to national materials.

Figure 8: Access Cycle to UAE National Material



Creswell (2002) identifies the research problem, the personal experiences of the researcher, and the audience(s) for whom the report is aimed at as the three factors affecting the choice of one research methodology over another. Trauth (2001) identifies the following five factors: (a) the research problem; (b) philosophical assumptions; (c) the degree of uncertainty surrounding the phenomenon; (d) the

researchers' skills; and (e) academic politics as the main factors to choose one research methodology over another. A brief overview of each of these influencing factors is provided below:

- **The research problem:** Yin (2003) argued that the research question could influence the choice of research methodology. Trauth (2001) also indicated that the choice of a research methodology is largely influenced by the research problem because the research objective determines the direction of the research. In this study, a case study approach was seen as most appropriate to address the research questions concerning UAE federal higher education.
- **The philosophical assumptions:** the appropriateness of the research methodology also depends on the underlying philosophical assumptions. Although there are many classifications underlying existing philosophical assumptions, positivism and interpretivism are considered the main philosophical views in higher education research (Galliers, 1994; Pervan, 1994; Trauth, 2001; Pather et al, 2004). This research study adopted an interpretivist philosophical belief and utilized both qualitative (e.g. interviews and organizational documents) and quantitative (e.g. questionnaires) data collection methods in an attempt to reduce the gap between the two research philosophies. This position served the purpose of the phenomenon under investigation, as the researcher found no studies exploring federal higher education models in the UAE similar to those of developed countries.
- **The degree of uncertainty surrounding the phenomenon:** Trauth (2001) stated that "...the less that is known about a phenomenon the more difficult it is to measure it". This indicates that the research methodology selection could be determined by the provision of information or previous studies on the area under investigation. A further issue related to this factor could be the lack of accessibility or the difficulty of employing a certain data collection method in an organization.

In relation to this study, the lack of previous studies investigating the characteristics of the federal higher education model in the UAE compared to those of developed countries was an obstacle in understanding the phenomenon under investigation.

- **The researchers' skills:** Trauth (2001) also stated that “an individual's level of skill, knowledge and experience in using [certain] research methods is a significant influence when deciding whether or not to employ them in research”. Corcoran (2004) suggests that the researcher is an external evaluator who sets out to examine the practices of an institution. He/she provides important feedback to practitioner and the institution to move forward. This means that the more confident a researcher is in using a certain research methodology, the more likely he/she would be to favour one research methodology over another. In this research study, the researcher has been working in federal higher education institutions in the UAE for more than ten years. The researcher has also conducted a number of projects and research studies within that environment that can allow her to state that she has the necessary experience, skills and proper environment to conduct this study.
- **Academic politics:** Trauth (2001) also argued that academic politics have potential influence on the selection of the research methodology. She stated that the degree of influence depends on “...the norms and values of the field, the institution at which one works and the status that one holds there, and the country in which that institution is located”.

To some extent social, cultural and political values could have significant influence on the choice of research methodologies, especially if the research is funded by an organization and where change in this organization relies heavily on the findings of the results. In relation to this study, Zayed University, where the researcher works has no direct influence (social, cultural or political) on the findings of this thesis or the choice of research methodologies. However, while some may feel comfortable responding to questions about government policies concerning UAE federal higher education, others may not feel as comfortable. For this category of respondents, the researcher chose to employ questionnaires and analyse them anonymously.

4.6 The Case Study

Qualitative inquiry lends itself to a fairly wide range of approaches which are at the disposal of the researcher. Creswell (2007) suggests five major qualitative research approaches that are possible depending on the philosophical stance and the research aims.

These approaches are Narrative Research, Phenomenology, Grounded Theory, Ethnography and Case Study. In addition to these widely accepted approaches in social research, the research into higher education also has a sixth potential research approach which is Action Research. Action Research is more generally used in research in the humanities and teacher education but is finding more application in the social sciences (McNiff, 2002). Because of the nature of the thesis topic and the research questions any of these approaches could have been chosen by the researcher. However, the three approaches which were considered to be the most appropriate were grounded theory, action research and the case study. The grounded theory approach was considered as a possibility as there is no single theory that can explain the process management of the higher education environment (Creswell, 2007). However, the purpose of the research is to examine the experience of higher education in the very specific and bounded environment of the federal UAE higher education system which would not have had a broad enough base of data to justify the construction of a widely generalizable theory. Although the aim was to look at the UAE federal higher education system framework, the interest of the researcher was primarily on how the case of the UAE can generate a theory that is applicable to the case itself and then whether there was a possible resonance for other environments (Bryman, 2008). From a pragmatic perspective as well, grounded theory would have required a larger number of interviews with individuals which would have been quite expensive and impractical in terms of the time available to the researcher. As a participant and an observant in the development and evolution of the UAE higher education system, Action Research was also an attractive possibility for this research. However, the research purpose was not primarily to understand the impact of the evolution on the researcher's professional practice. although this was of course an element of the outcome of the research as well. The

researcher's interest was primarily in understanding the overall evolution and experience of the UAE federal higher education system.

The choice of the Case Study approach was, therefore, chosen as it satisfied the research aims and addressed the more pragmatic issues of limitations of access to data and data collection techniques.

The case study approach also allowed for the use of multiple data collection and analysis techniques which can be borrowed from some or all of the six research approaches highlighted in this section. The case study is an appropriate methodology when undertaking a holistic investigation where in-depth exploration is required.

The case study methodology has found an appropriate home in social sciences and is used extensively in educational contexts (Feagin et al, 1991). According to (Yin, 2003), a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when boundaries between phenomenon and context are not clearly evident. The case study design is better suited for situations where it is difficult to separate the phenomena's variables from its context (Yin, 1994).

Stake (1995) states that case studies are designed from the viewpoint of the participants by using multiple sources of data. Yin (1994) explains that **case study research** is better suited for the 'how' and 'why' questions because they deal with operational links needing to be traced over time, rather than mere frequencies of incidence. Some of the critiques of case study methodology in general include claims that case studies provide little basis for scientific generalization; take too long to complete; and lack academic rigour (Yin, 2003). In higher education the case study approach has been criticized specifically as it lacks a clear purpose, there is an unclear role of the author, limits critical analysis, lacks clarity on the role of the research team and its contribution of the case (Corcoran, 2004). Hammersley (1992) suggests three methods by which generalizability can be addressed: first, by comparing relevant aspects of the case; second, undertaking survey research on random cases; and third, the coordination of ethno-graphic studies.

Case studies can be categorized as exploratory, descriptive and explanatory (Yin, 1994). An exploratory study is used to define the questions to be used in a subsequent study. It might be used where there is little in the literature about a topic. A descriptive study leads to detailed analysis of a particular phenomenon. An explanatory study goes beyond the descriptive one in trying to explain why events happened as they did or why a particular phenomenon took place. A case study is characterized by depth rather than breadth.

It is also holistic rather than looking into individual sectors, and usually uses multiple sources and methods to collect data. Case studies can also be historical, short-term contemporary, or longitudinal (Briony, 2006). Merriam (1988) identifies four main characteristics of the case study: particularistic; descriptive; heuristic, and inductive. The first attribute 'particularistic' refers to one event or process that is the focus of the study. The second attribute 'descriptive' refers to the details relating to the phenomena. The third attribute 'heuristic' refers to how the study contributes to an understanding of the phenomena. The fourth attribute 'inductive' refers to the form of reasoning used to determine generalisation or concepts that emerge from the data.

Given the how and why type nature of the this study's research questions, the study can be classified as exploratory since no previous significant studies have been conducted to examine the characteristics of the federal higher education model in the UAE and how those characteristics compare to those of developed countries. The study can also be classified as contemporary by nature given its timing. The study is intrinsic since the researcher has an interest in the case because of the need to learn about higher education in the UAE. It is an instrumental case study because it is used to understand more than what is obvious to the regular observer. , The case seeks to understand the forces that led to the current higher education system that is in place in the UAE. This case study utilized a traditional mix of quantitative and qualitative methods in order to capture the complexity the issues and reveal the kinds of interactions that were necessary within the different contexts (Stake, 1995).

4.6.1 Single – Versus Multiple - Case Design

In addition to defining the research questions, the decision to include one or more case studies is another central issue in any case study based research design. A frequent criticism of case study research is that it depends on a single case which makes it difficult to generalize the conclusions of the case study (Yin1994; Benbasat et al.1987). In this study, the UAE higher education system was selected and defined as a single case study as the researcher believed there were typical instances which were representative of the overall context under investigation.

The single case study approach was chosen to allow the researcher to focus on a unique and single cultural environment. Although the study examined three higher education institutions in the UAE, the researcher believed that the context under investigation was the federal higher education model of the UAE, with various components and not the individual universities themselves. The universities were conceptualised as different units that represent a single cultural environment, which is the new federal higher education model, drafted and planned by the UAE Ministry of Higher Education; a single entity in charge of federal higher education in the UAE. This view was taken because the three institutions have the same organization and reporting structure; they follow the same guidelines; and they are governed by the same rules. All three institutions also report indirectly to the ministry of finance for funding purposes, and they all have the same president. However, in the course of the fieldwork, variation was noted among the three institutions and this can be seen in the curriculum, specialities offered, and targeted students. This was subsequently reported on. Although the use of multiple case studies has been a significant feature of research design in leadership studies, the decision to present a single case study was guided by the following rationale:

- Multiple case studies may be able to lend a sense of credibility to the research; however, in the use of multiple case studies the researcher must ensure that the case studies are indeed complementary and do not contain elements that would in fact cloud the issue under investigation. In the case of the UAE federal higher education system, there may be similar universities

throughout the world but the contextual specificity of the UAE system would be hard to find in another university.

□ The issue of generalizability is an epistemology that is not consistent with the use of a case study approach as it sees the case as the object of interest in its own right (Bryman, 1989).

□ The single case study lends itself to in-depth investigation through the use of multiple methods and rigorous and detailed analysis of a phenomenon. Indeed, the case is the ideal vehicle for exploration of multiple perspectives which may in fact lead to an understanding of human behaviour and perception within a given context (Flyvbjerg, 2006).

4.6.2 Design and Context of the Case Study

To assess the credibility of the research results and to determine whether and to what extent they are transferable into other settings, a detailed description of the research context is necessary (Ragin, 1999; Yin, 1999).

Aspects of the research context are clarified as follows. First, the research context is conveyed through a detailed description of where the research was conducted and the specific period of time under investigation. The second aspect is a discussion of how the setting and the investigator's role may influence the nature and the type of the data collected and, hence, the results. Particularly important are when the data was collected in relation to the time the events occurred; whether there were one or more data collection periods; and whether the researcher was able to gain sufficient access and spend enough time to develop an intimate understanding of the setting and the phenomenon of interest. Finally, it is important to specify whether the case study is part of a larger research program and, if so, the role of the case study in that program. Being the principle investigator in this research study, the researcher role is purely academic. All approvals to conduct any part of this study were obtained in advance. All participants were informed of their right to decline to participate. They were also informed of their right to anonymity. The nature, purpose and objective of the study were explained to each and every participant. The direction of the findings

bears no consequences to the researcher's role as an investigator. Finally, it is important to specify that this case study was not part of a larger research program.

4.6.3 Insider Research

In contrast with scientific research, where the researcher is external and objectively remains outside of the research, the term 'insider research' refers to studies where the researcher has a direct involvement or connection with the research setting (Robson, 2002), (Denzin and Lincoln, 2000). There are various ways in which a researcher can be categorised as an insider researcher. For example, as a practitioner researcher, the researcher could be a professional conducting a study in his/her work. In collaborative research, the researcher and the subject are both actively involved in carrying out the research (Robson, 2002).

With insider research, the concept of validity becomes a concern because of the researcher's involvement with the subject of study. Some may argue that because of this involvement the researcher is no longer 'objective' and their results may be distorted or invalid (Kvale, 1995). Others may argue that because complete objectivity is impossible, the researcher's biases threaten validity or robustness of data. However, there are also many cited advantages of insider research. For example, an insider researcher may have a wealth of knowledge which the outsider is not privy to (Jones, quoted in Tedlock, 2000). Interviewees may feel more comfortable and freer to talk openly if familiar with the researcher and thereby increasing validity due to the added richness, honesty, fidelity and authenticity of the information acquired (Tierney, 1994). Regardless of the type of research, it is crucial to minimise the impact of biases on the research process and "carry out research in consciousness of its socially situated character and to make the researcher's position vis-à-vis the research process transparent" (Hammersley, 2000). And while research undertaken by an insider can be constrained by funding, resources, internal politics, conflicts of interest between workers and between worker and organization, and so on, these constraints are not exclusive to insider research and may be overcome by the many benefits. The insider-researcher is in a unique position to particular issue in depth and with special knowledge. Insider researchers usually have easy access to people and information that can further enhance that knowledge. They are in a prime

position to investigate and make changes to a practice situation. One can challenge the status quo from an informed perspective.

4.6.4 Quantitative and Qualitative Design

Qualitative and quantitative researchers often operate with a different set of assumptions. These assumptions may be seen as mutually and inevitably irreconcilable. The result is that the two major approaches (qualitative and quantitative) are not usually used in combination, and as a result, their respective strengths are not utilized (Polit, 1991).

Quantitative research can be defined as the “numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect; while “Qualitative research is described as the non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships” (Babbie, 1992).

Qualitative researchers stress “the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry ... In contrast, quantitative studies emphasize the measurement and analysis of causal relationships between variables, not processes. Inquiry is purported to be within a value-free framework” (Denzin, 1994). Instead of using a particular research paradigm, it can be more instructive to see qualitative and quantitative methods as distinctively appropriate depending on the research objective. Guba and Lincoln, state “Both qualitative and quantitative methods may be used appropriately with any research paradigm. Questions of method are secondary to questions of paradigm, which we define as the basic belief system or world view that guides the investigator” (Guppa, 1989).

In this study, exploring the implementation of new higher education model in the UAE requires a mainly qualitative approach, since “it is not possible to divorce the processes of change under study from the social contexts in which they occur” (Casebeer and. Verhoef, 1997: 121). On the other hand, the study requires quantitative analysis of differences under carefully controlled conditions. The

quantitative design (questionnaire) affords the researchers to reach out to a greater number of respondents, enquire about a greater number of issues, and analyse the data using statistical analysis.

The quantitative design in this study is more concerned with the input of students and faculty members across the examined institutions. On the other hand, the qualitative approach allows for the more in-depth input of the executive management and the researcher. The researcher is able to delve into specific issues of concern using interviews, documentations, and observation. The combination of both designs allows the researcher to receive input from all stakeholders, use different analysis tools, cross validate findings, and increase the scope of enquiry to include more directly and indirectly relevant areas.

In summary, in this study, the use of both quantitative and qualitative data has allowed the researcher to better: develop measures, identify relevant phenomena, interpret/explain quantitative data, interpret/explain qualitative data, gain equal/parallel value from both types of data, and conduct effective multistage (longitudinal) analysis.

The qualitative and quantitative data were triangulated to achieve allow the researcher to be more confident with results. Triangulation is a powerful technique that facilitates validation of data through cross verification from two or more sources. In particular, it refers to the application and combination of several research methodologies in the study of the same phenomenon. It can be employed in both quantitative (validation) and qualitative (inquiry) studies. It is a method-appropriate strategy of founding the credibility of qualitative analyses. It becomes an alternative to traditional criteria like reliability and validity. By combining multiple observers, theories, methods, and empirical materials, researchers can hope to overcome the weakness or intrinsic biases and the problems that come from single method, single-observer and single-theory studies (Biklen, 2006). The most important advantage of using multiple sources of evidence is the development of converging lines of inquiry (Yin, 1994; Patton, 1999). Any findings or conclusions in case study are likely to be much more convincing and accurate if they are based on several different sources of information.

In addition, by aggregating the quantitative and qualitative data, we can use pattern coding (Miles, et al., 1994) to identify emergent themes, patterns, or explanation suggested by qualitative information gathered from the selected instruments. Pattern coding reduces large amounts of data into a smaller number of analytic units and will help structure the investigated issues. The process involved assigning units of meaning to the descriptive or inferential information compiled from the different data collection instruments, and relating them back to the nine themes of this study.

The data units identified as belonging to and were subsequently aggregated into thematic groups. Each group was given an initial ‘pattern code’ that describes it. These initial pattern codes were refined through an iterative reading and analysis process and related back to the nine key themes.

4.7 Data Collection and Analysis

4.7.1 Elucidation of the Data Collection Process

Due to the researcher’s position in Zayed University, and the organizational support she receives, it was possible for her to utilize a range of methods and instruments throughout the duration of this research study. The overall data collection period was from February 2009 through to May 2010,; during which documents were collected, and interviews were conducted and questionnaires were distributed.

For the benefit of the research, it was essential to elucidate how data was collected in the research investigation. The lack of representativeness in how data is collected presents a serious question over its credibility and reliability. Merriam (1998) sees the researcher as the ‘primary instrument of data collection and analysis’. The researcher role was to study the situation as a whole in order to understand the process that shapes the focus of the research. While in quantitative research, the researcher is viewed as objective, in qualitative research, the researcher is viewed as subjective. According to (Denzin et al, 2000), researchers “emphasize, describe, judge, compare, portray, evoke images, and create for the reader or listener, the sense of having been there”. To achieve this in this case study, the researcher employed a variety of techniques such as interviews, questionnaires, documentation, and observation in order to clearly portray the view of the participants and the

researcher. In this study, the researcher role as the marketing coordinator in one of the federal higher education institutions in the UAE, and her connection with other federal higher education institutions, allowed her greater insight and sensitivity to the context while exercising privileged access to university resources. Such privileges include access to infrastructure, materials, resources, and personnel. Throughout the process of this study the researcher was sensitive to biases, by being aware that there is multiple interpretation of reality.

4.7.2 Reliability, Validity, and Generalizability

The three concepts (reliability, validity and generalizability) each describe a different facet of the truthfulness of the research.

Reliability, describes the consistency of the findings, or ‘the degree to which the finding is independent of the accidental circumstances of the research (Ansii, 1997)’. Validity pertains to the degree that a method investigates what it is intended to be investigated (Kvale, 1996). Generalizability refers to the applicability of findings to other settings (Selltiz, 1976). One technique that can improve the reliability of data is “triangulation”. The triangulation of data from different sources improves the reliability of the research. A comparison of the answers given by the examined groups confirms the reliability of the findings on the assumption that the examined groups are comparable.

Validity is the primary emphasis of qualitative research (Kirk and Miller, 1986). It may be possible that semi-structured interviews were not the only valid method for accessing this type of information from individuals. A different epistemology may have required a different method, but still produce valid results. Generalizability presents a challenge to the utility of the research for different audiences. As noted earlier, the study is limited to UAE. However, it presents a model to other developing countries with similar settings to the UAE, especially those in the Gulf region and the greater Middle East region. The extent to which other public universities in other countries from these regions function in the same manner would determine the extent to which the data and conclusions from this study are more widely applicable. Differences, or similarities, between the responses suggest the extent to which the data are unique to this particular context or can be more widely

applicable. Moreover, this study is time-bound, and so may only be applicable to those universities that are early in their evolution, or facing a particular higher education policy environment at the time. Yin (1994) identifies several sources of qualitative evidence in case research including: interviews, documentation, direct observation, participant observation, and physical artefacts. Quantitative observations, mainly in the form of questionnaire data, are also gathered in case studies (Eisenhardt 1989; Benbasat et al. 1987). Among the other data collection methods available to case researchers, documentation was also widely adopted while direct observation was less used.

It is also worth noting that the utilisation of any one of these data collection methods might require the use of various research skills and techniques on the part of the researcher. In this case study, reliability, validity, and generalizability measures were implemented during the data gathering process.

4.7.3 Research Design and Methods

The case study has often been seen as a more narrative and anecdotal method of research. However Yin (2003) indicates that the case study allows for the use of quantitative data to analyse the case in certain circumstances. In the analysis of this case study mixed methods were used to gather the data. Quantitative data were collected and analysed through surveys while qualitative data were collected and analysed through interviews, observation, and document analysis.

In doing so, one has to be clear as to the purpose of the use of mixed methods in this case analysis. Johnson and Onwuegbuzie (2004) elaborated on five major purposes for using mixed methods:

- Triangulation (i.e. seeking convergence and corroboration of results from different methods and designs studying the same phenomenon);
- Complementarity (i.e. seeking elaboration, enhancement, illustration and clarification of the results from one method with results from the other method);

- Initiation (i.e. discovering paradoxes and contradictions that lead to a re-framing of the research question);
- Development (i.e. using the findings from one method to help inform the other method); and
- Expansion (i.e. seeking to expand the breadth and range of research by using different methods for different inquiry components).

(Johnson & Onwuegbuzie, 2004, pp. 21-22)

This study used mixed methods primarily for the purposes of triangulation. The opportunity to use different sources of evidence provided a better picture of the events than would any single method (Yin, 1994; Sawyer, 2001).

A multi-method approach to research involves several data collection techniques, such as interviews and documentation, organized to provide multiple but dissimilar data sets regarding the same phenomena (Jick, 1979; Gallivan, 1997). While not all resources are essential to every case study, the importance of multiple sources of data to the reliability of the study is well established (Stake, 1995; Yin, 2003).

The use of questionnaires is among the most widely used techniques for gathering data (Sekaran, 2000). The main aim of the questionnaire instrument is to access as many respondents as possible, assure the anonymity of the respondents to guarantee a more honest response, and allow the respondents, especially non-native-English speakers, the time to think about the answers. Most of the questions in this study were a combination of open-ended and closed-ended.

The use of semi- structured interviews was required for discovery purposes. (18) Eighteen individual, semi structured detailed/lengthy face-to-face interviews were conducted with key personnel to gain an in-depth understanding of the case study and its context. To discover what people really do rather than what they say, observation-based research was conducted. The availability of documents which could be used in the research study is also a good reason for using document-based research. Many of these documents were obtained quickly, cheaply, and conveniently. All of this allowed for the availability of a substantial amount of quantitative, pre-coded, and ready for analysis data really quickly.

Questionnaires

The use of questionnaires is among the most widely used techniques for gathering data (De Vaus, 1997). Sekaran (2000) stated that questionnaires are powerful tools for data gathering when the researcher appreciates precisely what is needed and how to measure the variables of interest. A questionnaire is a predefined set of questions structured in a predefined order to be given to respondents. When completed, the questionnaire is given back to the researcher for analysis purposes. Questionnaires can be self-administered, meaning, the researcher does not have to be present, or can be researcher-administered where the researcher asks the questions and writes the answers.

Questionnaires are widely used in research because they provide an easy way to collect large amounts of data. Questionnaires are best suited in the following situations:

- When the researcher needs to obtain data from a large number of people.
- When the researcher needs to ask identical questions to a group of people.
- When the researcher needs to obtain relatively brief and uncontroversial data.

A questionnaire differs from an interview as it is a more impersonal probe since the respondent is anonymous and is not subjected to the influence of the researcher (Forsgren, 1989, Sekaran, 2000). This study attempts to analyse the views and perceptions of different stakeholders in the UAE federal higher education system, which include faculty, administrators and students. The challenges were two-fold: firstly, the geographical dispersion of the examined institutions which are spread over a number of states; and secondly, as a member of the management team the researcher's physical presence might have inhibited and biased the responses thus leading to less useful data. Although Hunter et al., (2007) strongly criticised the use of the self-administered questionnaire (SAQ) due to what they consider to be "faulty assumptions" of naivety on the part of the respondents, Bryman (1989) points out that there is little doubt that the SAQ is one of the most appropriate methods of collecting data when respondents are geographically dispersed and when the presence of the interviewer is likely to influence the responses given.

However, the SAQ has several other methodological challenges of which the researcher has to be aware. Apart from the obvious drawback of poor return rate and unanswered questions, the SAQ can bias the respondents' answer due to the 'halo effect' (REF??). The halo effect in this context refers to the tendency for respondents of SAQ's to answer questions based on their perception of the purpose of the study. In addition, respondents usually tend to read the entire questionnaire to get an idea of what is being asked for and this could lead to bias in their responses (Johannson, 1976).

After piloting the questionnaire in the traditional SAQ format, some of these effects were noted and so a decision was taken to use a computer administered questionnaire (CAQ), using the online survey service "Survey Monkey" (www.surveymonkey.com). Jaffe & Pasternack (1997) indicate that an appropriately designed CAQ succeeds in minimising the halo effect as respondents are prompted to answer one question at a time, are unable to return to previous answers and are forced to respond to each question before prompting for the next question. Also, given the supervisory relationship between the researcher and many of the respondents, the CAQ allowed for anonymity of the respondent and encouraged a better return rate (Jaffe & Pasternak, 1997). The questionnaire was designed based on extensive literature review and utilizing the guidelines and examples outlined by Delbecq (1975) and Ziglio (1996). A pilot study was conducted with 10 colleagues from Zayed University to test the validity and the reliability of the questionnaire. The questionnaire was deployed on-line using both structured and unstructured questions (See Appendix B). Table 7 shows the distribution of respondents. The questionnaire process started by dispatching all 200 questionnaires to the sample; this was followed up by reminder telephone calls. The response rate achieved was 74% with 148 completed questionnaires returned.

Table 7: Questionnaire Respondents Distribution

University/ Role	ZU	UAEU	HCT	Total
Faculty	25	25	20	70
Students	25	25	20	70

Administrators	20	20	20	60
Total	70	70	60	200

Data collected on-line was saved in an MS-Excel file which removed the need for double entry of data and made data manipulation and analysis more straightforward. The appropriate data were easily transferred into a matrix within SPSS software package which was used to analyse data. Chi-Squared tests were used to explore whether the presence or absence of ties obtained from the data could be explained by differences in one of the attributes captured in the questionnaire.

The justification for conducting this type of inquiry came from a consideration of its advantages. As supported by many researchers (Zikmund, 1991; Kumar, 1996; Sekaran, 2000) there are several advantages and reasons that support the popularity of self-completed questionnaires as data collection mechanisms, such as cost savings, timeliness, anonymity, and easy interpretation.

Despite the advantages of using questionnaires, there are some disadvantages. These disadvantages include: (a) misunderstandings of the language used and different interpretations of the questions from one respondent to another; (b) forcing a statement of opinion on an issue when respondents do not have any opinion; (c) lack of opportunity to clarify issues if the respondent does not understand some questions; and (d) people may be better able to communicate orally rather than via writing questions, etc. (Selltiz et al, 1976; Smith, 1981; Kumar, 1996; Sekaran, 2000). To limit some of these drawbacks, this study employed a combination of both closed and open-ended questions in its questionnaires. Closed questions were used to facilitate respondents' understanding of topics of concern, and remind them of the points that they may not think about. On the other hand, open-ended questions were used to gain understanding and to capture the viewpoints of respondents.

Documents

In addition to interviews, observation and questionnaire surveys; documents are considered to be a good source of data. The analysis of documents broadens the evidence base for the research. It provides a check of what is being claimed verbally by interviewees and what is articulated in written documentation by the institution, thereby providing a form of triangulation. Throughout the data collection process,

the researcher gathered contextual information from institutional documents. The vast majority of the information was in the public domain in the form of university catalogue, brochures, reports, websites or books, two institutions (ZU and UAEU) provided internal documentation in the form of their strategic plan. One institution (HCT) did not have a written strategic document made available for internal or external purposes. In addition to documents emanating from the institutions themselves, factual information was obtained from the Ministry of Higher Education website.

The contextual documents that were made available acted as a form of triangulation either to confirm or disconfirm the informants' declarations, not in terms of right or wrong, but whether or not they were consistent with the institutional image projected in the interviews. The detailed financial situation of the institutions was considered sensitive data and, therefore, only limited information was made available to the researcher which led to the decision that they could not be considered as one of the "institutional tools". However sufficient general information on institutional financial health and the relationship between funding and strategy was available to inform the inquiry. To support the main themes of this study, the researcher looked for documents that could be easily linked to the key themes. For example, to understand the vision and mission of each university, the researcher examined documents such as the university catalogue, strategic plan, and the university web sites. Course syllabi were examined to support findings on the curriculum side, including instruction language, learning outcomes, assessment and accreditation measures, use of technology, etc. Faculty contracts were also used to learn about job descriptions, expectations, and working conditions. In general, documentations examined in this study included the university website, annual catalogue, course syllabi, program reviews, self-studies, strategic plans, curriculum vitae, and accreditation applications. Full details of documents examined and their associated sources and use is included in the findings chapter.

Interviews

Having derived much material from the surveys, documentation and participant observation, the interviews attempted to capture in a more in-depth manner the lived reality and the mix of influences affecting the three institutions. The perspective of

others is ‘meaningful, knowable, and able to be made explicit’ (Patton, 1987). An interview is a particular kind of planned conversation between people where the interviewer needs to gain information from the interviewee(s) about a specific topic. Data from interviews consists of direct quotations from respondents about their opinions (Patton, 1990). When used to gather data, qualitative interviews may function as the primary strategy for data collection, or in conjunction with other techniques (Bogdan & Biklen, 2003). Furthermore, they are particularly helpful in triangulation and validity confirmation (Morgan, 1988).

Patton (1987) categorizes interviews into three categories; “Structured Interviews where standard, identical questions apply to all interviewees; Semi-structured Interviews are interviews with list of themes to be covered, but changeable order of questions, depending on the flow of conversation; Unstructured Interviews are interviews where the interviewer has less control and the interviewee has a better chance to talk freely without being restricted to the interviewer’s question. While structured interviews are mainly used to check the answers to a group of questions, semi-structured and unstructured interviews are used mainly for discovery since the interviewee is allowed to speak freely. Structured interviews are better suited for research questions, while semi-structured and unstructured interviews are better for exploring feelings and personal accounts”. During this study, a total of (18) eighteen individual, semi-structured and extensive interviews were conducted with key personnel and decision-makers in the three UAE federal higher education institutions. Six interviews were held in each university with senior managers including the provost, chief academic officer, and the vice president of the university. The aim of the interviews was to gain an understanding of ‘why’ and ‘how’ the current higher education model of federal institutions in the UAE emerged. The interviewees were selected as they, to a large extent were involved in the policy and decision-making matters within UAE higher education. In order to ensure that, in essence, the same material is covered during the interviews, a ‘portfolio’ containing the areas to be covered during the interview was given to the interviewees in advance.

The interviews were conducted in a semi- structured and one-to-one basis in order to allow the respondents a high level of flexibility and freedom. Some of the benefits

of these interviews included avoiding confusion or miscommunication that might have taken place in the questionnaire instrument. Another benefit was to allow the respondents to provide more accurate and precise information regarding the topic under investigation, and also allowing the researcher to ask further complex and follow up questions. An email was sent to each interviewee approximately one week before each interview. The email indicated a number of general areas for possible discussion, and confirmed anonymity in data reporting. Each interview was scheduled to last for a minimum of one hour, and was conducted in the office of the particular interviewee.

One interview was conducted by telephone because the interviewee had to be in a different location. Appendix A lists the primary questions used in the eighteen semi-structured interviews. These were supplemented by requests for clarification or examples where necessary. The wording of these questions had been checked for clarity and agreed with the researcher's supervisor prior to the interviews. Permission to record the interviews was requested in advance of the interview, and was granted in every case. The digital recordings of each interview were transcribed. In addition, two (2) phone interviews were conducted with Dr. John Boli, one of the key figures behind World Polity to discuss his views of this research study and how he views the utility of World Polity in the UAE federal higher education system.

4.8 Ethical Issues

In engaging in qualitative research, it is said that the researcher "assumes the posture of indwelling" (Maykut & McLean, 2003). When the researcher becomes more engaged with the subject and views the subject from an inside-out perspective, this element of "indwelling" may cause some concern for ethical issues. In this study, the researcher needed to be alert to the fact that, as a member of the examined universities' management, research in the area of management of federal higher education in UAE public universities may put the researcher at both an advantage and disadvantage and raise some ethical concerns, among which were:

- the influence of personal values and biases;
- issues of power relationships; and
- Confidentiality.

4.8.1 The influence of personal values and biases

Even a positivist approach to research can and is influenced by the researcher's own views and values and are often reflected in the hypothesis, choice of methods etc. (Bryman, 2008). One must admit the possibility of bringing personal biases and values to the research questions.

Bailey (1994) states clearly that membership in the group under research has both pros and cons for the researcher and for the validity of the research project: "The fact that he or she is a member of the group being studied can affect one's own values, biasing one's interpretation of the data in favour of the group members. However, membership in the group being studied can also have advantages. Some researchers feel that only by thinking exactly as a group member thinks, can one ever really understand social phenomena". Recognition of this potential ethical conflict is part of the reason for the varied methods of data collection chosen in this study in an attempt to minimise the biases that may exist in the researcher's own values, beliefs and principles. However, one does recognize that the choice of theoretical framework and research methodology and methods will be influenced by those values and beliefs to a large extent, and that this holds true for all researchers and research.

4.8.2 Issues of power relationships

In administering the questionnaire and conducting the interviews, it was recognised that the participants were persons who were either direct or indirect reporting to the UAE Ministry of Higher Education. A major concern in this relationship of power was that participants may have felt "obliged" to respond in a specific way given their status in the UAE federal higher education system. To minimise this concern the participants in the survey were made fully aware of the academic purpose of the study as well as the professional aim of improving practices and processes. In addition, the use of an on-line survey tool and computer administered questioning, allowed participants to be anonymous in their responses and to choose whether to participate in the activity. The interviews were totally voluntary and confidential. Taping of the interview was agreed on at the time of the interview with the full

consent of the participants. Thus, in order to mitigate some of these ethical concerns, the research design has taken into consideration the need to acknowledge the ‘Halo and Hawthorne effects’ and to build in the necessary methodological tools to overcome these.

4.8.3 Confidentiality

It was expected that concerns over confidentiality would be raised from among the executive and senior management staff of the examined universities who were interviewed. This is a sensitive issue as interviewees could feel constrained to express their views fully if there is a fear that the information may be used in a non-academic environment. To ensure confidentiality and anonymity for all participants in this study, the participants were presented with a letter confirming the confidentiality of all information provided by participants, and that only summarized information would be reported. Before each interview the purpose of the research was explained by the researcher to the participants. The participants were informed of their right to decline the interview or to disclose any type of information. In addition, the researcher explained to the interviewees that the names of the interviewees would not be identified at any stage of the study. Finally, all data gathered during the research process was physically secured and access was restricted to the investigator and her supervisor.

4.9 Matters of Reflection

In accomplishing this study, several problems were encountered during the data collection process. The practical problems confronted were explained in order to inform and to rectify these problems for future research. However, these problems are largely relevant to the UAE environment and culture. They may not be relevant or applicable to other environments and cultures.

Literature review: The amount of literature available concerning the UAE in general and UAE higher education in established journals and books in English is

extremely limited. Available journals and books in Arabic required proper translation before use which was costly in time and resources.

Questionnaire: Respondents are not usually enthusiastic about questionnaires and surveys. Even if they answer, they do not include much detail in open-ended questions. For this reason, a large number of questionnaires were sent out to all three higher education institutions to guarantee a proper number of valid responses.

The questionnaire was also confidential to allow respondents to freely express their views without fear of intimidation.

Interviews: Although arranging an appointment is not usually a major issue, some of the interviewees were initially hesitant in talking about the culture, the government, and decision-makers' influence in the UAE higher education system. For that reason, the interview questions were designed in a semi structured way to allow interviewees to provide as much information as possible.

4.10 Conclusion

Conducting research in the UAE is a demanding task due to many barriers, such as language, culture, cost, resources, and limited literature. Although considered a progressively developing country, the UAE is only 40 years old. Literature in both English and Arabic is very limited. This chapter presented the research design and research methodologies that was used in this exploratory thesis. Multiple data collection instruments were used in all three federal higher education institutions. Eighteen extensive interviews, with decision-makers were conducted to gain an understanding of the subject in hand. Over 200 questionnaires were disseminated to all three federal higher education institutions. Direct observation and documentation review were also used as supporting and complementary evidence to validate the findings. The use of the case study methodology allowed the researcher through the use of various quantitative and qualitative methods to explore a phenomenon as it is being experienced at various levels in a specific environment.

Chapter Five – The Case Study

5.1 Introduction

This chapter provides the background and key characteristics of the UAE federal higher education system represented by the three federal higher education institutions of the UAE: United Arab Emirates University (UAEU), the Higher Colleges of Technology (HCT), and Zayed University (ZU) as a single national case. Although the three federal higher education institutions are governed by one body, the UAE Ministry of Higher Education, there are similarities and variations within their profiles. The following three sections present for each of these three institutions the history and development; vision, mission and goals; organizational and administrative profile; student profile; faculty profile; and academic and curricula profile. The chapter also looks at how the establishment of each of the three institutions reflects a different era in the development of the UAE federal higher education system, with the shifts and differing influences from an Egyptian higher education model in the case of the UAEU, to a more hybrid, American-like higher education model in the case of Zayed University.

5.2 The United Arab Emirates University (UAEU)

5.2.1 Introduction

In the early 1970s, UAE students who wished to participate in higher education did so mainly through attending higher education institutions abroad. After the federation in 1971 the UAE government, for both economic and national-pride reasons, realized the need for establishing a higher education system in the UAE. Since there was not already a specific higher education system in place, a new higher education system had to be established. The new UAE University was set up to help unite the new nation and keep the UAE students closer to home.

The state of AL-Ain, which is centrally located to the other Emirates states was chosen early on in the process because of its location and because it is the birth place of sheikh Zayed, the founder of the UAE. In addition, the state possessed national heritage, which was seen as more appropriate for a national university and it was quiet and conservative enough for UAE families to feel comfortable about sending women for education, thus answering the needs of potential female students. Both men and women would be admitted but in segregated campuses.

The founding decree of the UAEU described it as “an Arab and Islamic University.....devoted to promoting culture and establishing its roots and developing society while preserving its authentic origins.....centered on upholding the foundation of Islam and Arab origins... and founded on the provisions of academic research”. In its first year of operation, the university admitted 535 (200 females and 335 males) students into four faculties - Arts, Sciences, Education, and Business Administration. A credit-hour, two semester system was adopted and mixed with a predominately Egyptian, colonial system for the pragmatic reason that many of the first generation faculty expatriates came from Egypt. The university was entirely state funded, and students received around 500 dirhams (150 dollars) stipend every month. The 1980s witnessed a growing concern over the readiness of the UAE work force. In response, the UAEU launched two new faculties - Engineering and Agriculture. A faculty of Shari’a and Law had been already been added a year after inauguration. By 1982, the number of students in the UAEU had increased from 535 to 1790. In 1981 female enrollments exceeded that of men. However, only eight of the 246 faculty members were UAE nationals (Findlow, 2001). The next sections take us through the early development of UAEU.

When the UAEU was launched in the 1970s the university decided to embrace the model that was used in Egypt at that time. After the discovery of oil and as the Gulf States began to modernize during the last century Egypt was the country they looked to for educational advice and personnel. The UAE was a late-starter in educational provision, with no indigenous models for higher education. Students with outstanding prospects were awarded scholarships to study in Cairo, from where they generally returned to take top government posts. During the 1950s and 1960s, Egypt played a large role in the setting up of a domestic education system.

Several key Emirati figures have been educated in Egypt, including the UAE's first Minister of Education in 1972, who graduated from Cairo University. Another dimension that is worth mentioning here is the political one. As Findlow (2001) carefully states, the Egyptian role in UAE higher education can be seen as “ a networking connection grounded in the post-imperialist Arab-Muslim reassertion that began in the mid twentieth Century—a relatively traditional, or ‘local’, political and cultural networking rival to more ‘global’ networks, offering a working educational and administrative model to rival western ones”. The Egyptian role in the case of UAEU can be seen in personnel terms. For instance, informal personnel as well as institutional connections have, over the years, accounted for some institutions and departments remaining predominantly ‘Egyptian’ by reputation; this includes the UAEU, especially its Arabic and religious departments. These reputations can be easily supported by statistics. For example, at the UAEU between 1977 and 1987, Egyptian faculty were the most populous with an average of 46.5% of PhD-holding faculty (UAEU, 1987). By 1996, the majority (143 out of 362) of UAEU faculty members listed in faculty handbooks had received their highest degree from an Egyptian university (UAEU, Faculty Catalogues, 2012). Four of UAEU's seven Vice Chancellors were of Egyptian origin. In 1986, Egyptian teachers made up 87.5% of the Shari'a and Law faculty, 86.5% of the Arabic faculty, 80% of Islamic Studies and 60% of Philosophy (UAEU Faculty of Arts and Faculty of Shari'a and Law catalogues). Moreover, the advertisements for teachers in Arabic medium subjects still tend to be placed in Egyptian publications, while the ‘modern’, technically oriented subjects are taught by Western expatriates or Western educated Arab expatriates. While the case of the UAEU is unique because of its history and close association with the federation of the UAE, the Egyptian influence on the case of the other two universities, HCT, and ZU, is hardly noticeable. In fact, as we explain in other sections, one of the key reasons for the creation of the other two universities was the desire of the UAE to move away from the Egyptian model into a model that supports Emiritization and the local culture and goals of the UAE.

5.2.2 UAEU Vision, Mission and Goals

The vision, mission and goals, of the UAEU have developed over time from a vision statement that was mainly focused on becoming a federal institution with an Arab-Islamic identity and a focus on intellect, culture and science, to a vision statement that takes into consideration globalization, modernization, and today's higher education requirements. Today's UAEU vision states "The United Arab Emirates University will be an internationally distinguished comprehensive research university. While adhering to UAE values, it will become a world-class center for applied research, national and international outreach, innovation and outcome-based learning. It will ensure the quality of all programs and services through international accreditation and external quality assurance reviews" (UAEU Web site, 2012). In contrast, the UAEU's initial mission statement 40 years ago was mainly focused on realizing the union of the nation. The mission stated "The University's founding mission was to realize the aspirations of society, deepen social ambitions and consolidate the structural foundations". The University was intended to contribute significantly to the development of the UAE, utilizing the national resources – the people, the heritage, the values, and economic resources of the nation. The UAEU mission statement today reads "As the UAE's first and most comprehensive residential university, the United Arab Emirates University is committed to excellence in undergraduate and graduate education, research and service to the nation and beyond. Through a student-centered educational experience, the University develops the intellectual, practical, creative and leadership abilities of the nation's men and women while enhancing cultural, social and economic growth" (UAEU Web site, 2012).

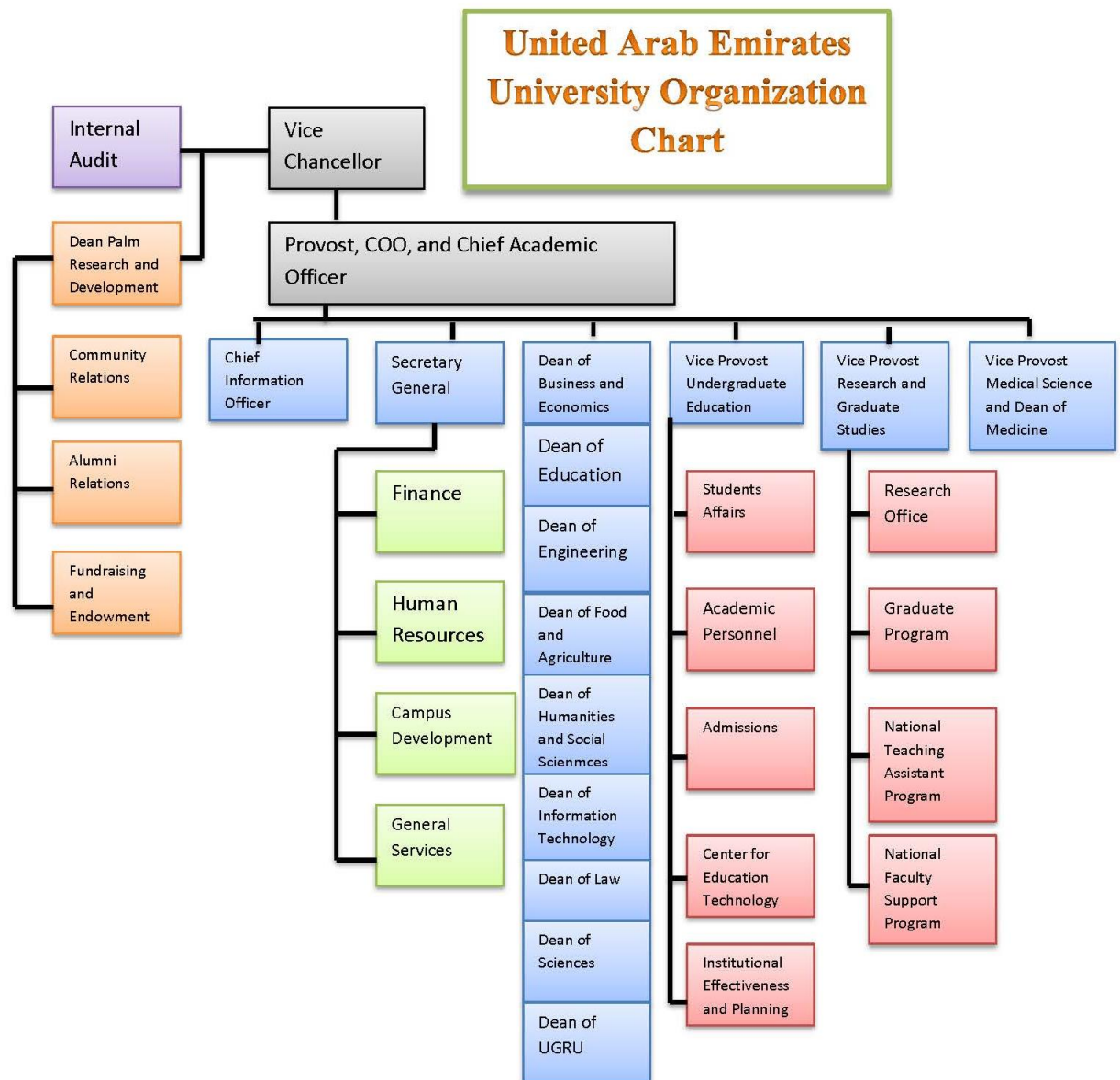
The UAEU transformation report (2009) lists six major goals:

1. Building institutional capability
2. Strengthening the educational experience
3. Developing the research mission
4. Investing in the health sciences
5. Creating a physical structure to serve the scholarly community
6. Engaging external partners and stakeholders.

5.2.3 UAEU Organization and Administrative Profile

As shown in Figure 9, the vice chancellor (must be a UAE National) reports to the chancellor (Minister of Higher Education) and a member of the royal family. The provost/CAO and the head of the internal audit unit report to the vice chancellor, and the nine deans, along with three vice provosts, secretary general, and the chief information officer report to the provost.

Figure 9: UAEU organization chart.



Source : UAEU Bylaws 2010

According to UAEU policy number 1, policies may be initiated by the Chancellor and Vice Chancellor. Senior officers are responsible for the operation of the university. UAEU policy number 3 specifies the senior officers of the university. First, the Vice Chancellor, who is also the chief executive officer of the University and is appointed by a Federal decree upon recommendation by the Chancellor. The Vice Chancellor is responsible for the University's academic, administrative and community affairs; supervise the execution of its by-laws, regulations and policies; and represent it before the courts and other bodies. The second officer is the Provost who is also the chief operating officer of the University and is appointed by a Federal decree upon the recommendation of the Chancellor. The Provost is responsible for monitoring the overall operations of the University; ensure that university services are transparent and seamless to the faculty, staff and students; prepare the annual University's operating plan. The third senior officer is the Secretary General who is appointed by a Federal decree upon proposal by the Vice Chancellor and the Chancellor. The Secretary General heads the University departments providing financial and administrative services. He supervises and liaises between them and other departments of the University.

The University Council is formed under the chairmanship of the Chancellor and constitutes: seven well reputed UAE nationals known for their good reason and wide experience, to be selected by the Cabinet, upon the Chancellor's recommendation, for a renewable two-year term; The Vice Chancellor; and Four faculty members to be selected by the Chancellor for a renewable two-year term. The Council is responsible for setting the general policy of education and research at the University within the context of the United Arab Emirates' general plan for higher education, laying down the by-laws, approving policies related to student admission and numbers within the framework of the general higher education plan; and endorsing the establishment of new colleges and higher institutes, the modification of existing ones or the establishment of new branches within the limits of the approved budget. Table 8 shows the UAEU's Statement of Revenues and Expenditures for the year ending 31 December 2009, and the Balance Sheet as at 31 December 2009.

Table 8: UAEU's Statement of Revenues and Expenditures for the year ending 31 December 2009, and the Balance Sheet as at 31 December 2009.

Statement of Revenues and Expenditures for the Year Ended December 31, 2009		Balance Sheet as of December 31, 2009	
Revenues	Amount (AED)	Assets	Amount (AED)
Unrestricted - Federal	1,289,192,829.61	Cash	232,770,152.67
Restricted - Government and other	144,131,042.05	Accounts Receivable	75,094,064.28
Allotment	28,495,879.08	Previous year's Deficit	122,839,259.86
Total Revenues	1,461,819,750.74	Total Assets	430,703,476.81
Expenditures		Liabilities	
Unrestricted - Federal	1,289,915,258.65	Salaries Payable	3,505,452.60
Restricted - Government and other	101,633,330.57	Government Payable	5,307,337.11
Allotment	20,485,904.13	Retentions Payable	17,971,312.69
Total Expenditures	1,412,034,493.35	Commitments Payable	352,556,013.61
Ending Fund Balance (Revenues - Expenditures)		Other Accounts Payable	578,103.41
Unrestricted - Federal	277,570.96	Total Liabilities	379,918,219.42
Restricted - Government and other	42,497,711.48	Ending Fund Balance (Revenues - Expenditures)	50,785,257.39
Allotment	8,009,974.95	Liabilities & Fund Balance	430,703,476.81
Total Ending Fund Balance (Revenues - Expenditures)	50,785,257.39		

Source : UAEU Annual Report 2010

5.2.4 UAEU Student Profile

The number of UAEU students has increased from only 535 in 1978 to more than 12,000 in 2010 (UAEU Annual Report, 2010). Table 9 displays UAEU undergraduate, graduate, and distance learning enrollment numbers in 2009 and provides a breakdown by gender and nationality. The numbers clearly show that female students make up the majority of undergraduate students (77%) and graduate students (53%). In addition, UAE nationals represent (82%) of the undergraduate enrollments, and (73%) of the graduate enrollments.

Table 9: UAEU enrollments and Graduates in 2009, and the Breakdown by Gender and Nationality

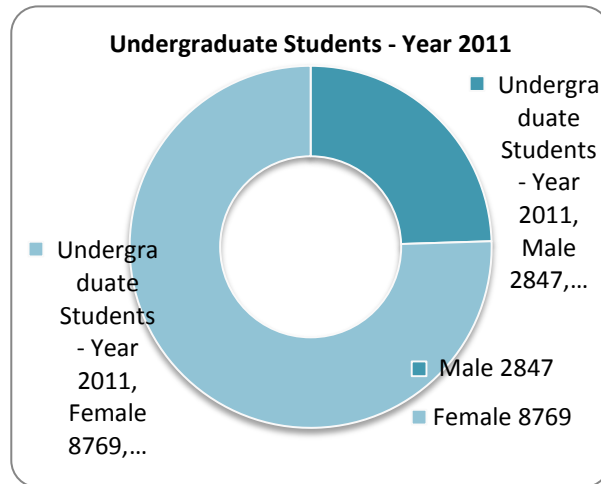
Enrollment (Undergraduates)	11,752 students 2,753 males (23%) 8,999 females (77%)	9,676 UAE citizens (82%) 2,076 Other countries (18%)
Enrollment (Graduates)	Diploma: 218 students 218 females (100%)	143 UAE citizens (65%) 75 Other countries (35%)
	Master: 259 students 121 males (47%) 138 females (53%)	189 UAE citizens (73%) 70 Other countries (27%)
Enrollment (Distance Learning)	22 female students 22 females (100%)	22 UAE citizens (100%)
Graduated (Undergraduates)	966 graduates 210 males (22%) 756 females (78%)	830 UAE citizens (86%) 136 Other countries (14%)
Graduated (Graduates)	Master: 25 graduates 10 males (40%) 15 females (60%)	20 UAE citizens (80%) 5 Other countries (20%)
	Diploma: 57 graduates 57 females (100%)	52 UAE citizens (91%) 5 Other countries (9%)

Source: UAEU Annual Report 2010. Also Available at :
www.uaeu.ac.ae/apaa/power_point/20090827_bowen.ppt

The number of UAEU undergraduate students in 2010 was 11,740 (2813 males and 8927 females). The enrollment numbers in 2010 graduate degrees was 717 (188 of which were males and 529 were females). The number of non-nationals admitted to the university in 2010 was 1,915 out of 11,740.

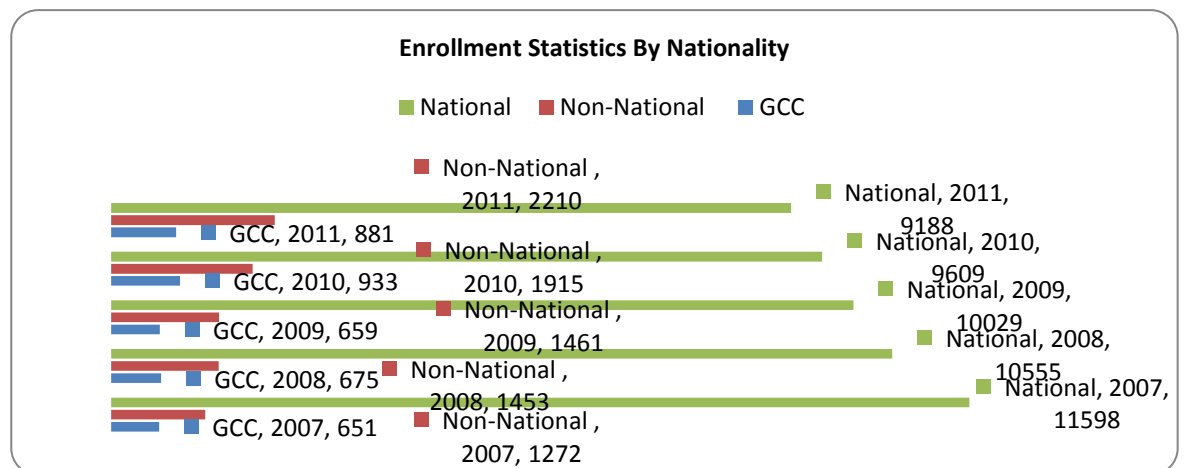
Undergraduate education is fully funded by the state. Students are not required to pay tuition and/or other fees. The average Master's degree cost, depending on the number of credit hours required, is 48,200-130,248 AED (15,000 - 35,000 US Dollars). Figures 10 to 12 display UAEU undergraduate enrollments trends (2007-2011) by gender and nationality.

Figure 10: UAEU 2011 Undergraduate Enrolments by Gender



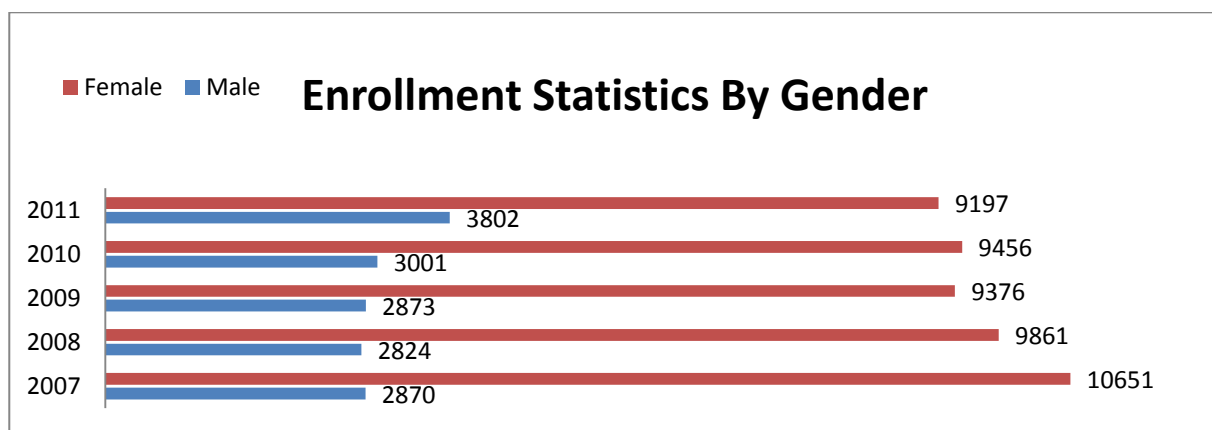
Source: UAEU Annual Report 2011

Figure 11: UAEU 2007-2011 Enrolments for Nationals and non-Nationals



Source: UAEU Annual Report 2011

Figure 12: UAEU 2007-2011 Enrolments Statistics by Gender



Source: UAEU Annual Report 2011

5.2.5 UAEU Faculty Profile

From only eight national faculty members in 1981, UAEU now has more than 185 national faculty members and 58 teaching assistants. Almost one-third of the university non-academic staff is made up of UAE nationals. Table 10 displays the breakdown by gender and nationality.

Table 10: UAEU Faculty Categories and Number (UAE national and non-UAE nationals)

Faculty members	724	605 males (84%) 119 females (16%)	185 UAE citizens 539 other countries
Instructors	94	78 males (83%) 16 females (17%)	2 UAE citizens 92 Other countries
Lecturers (UGRU)	265	187 males (71%) 78 females (29%)	265 Other countries
Teaching Assistants	58	34 males (59%) 24 females (41%)	58 UAE citizens
Non Academic Staff	1,987	1,267 males (64%) 720 females (36%)	476 UAE citizens 1,511 Other countries

Source: Faculty Statistics (2008-2009).

Full-time non-national faculty members at the rank of assistant professor, associate professor, or professor normally receive four-year appointments, with a two-year probationary period. The contract may be renewed for up to four more years. Visiting faculty members are normally appointed for a period between one semester

and one academic year. Instructor contracts may be terminated at any time with six months' notice. Adjunct appointments are normally made for a period between one semester and three years. Annual evaluation of faculty performance in teaching, scholarship, service and collegiality is the foundation for promotion review (UAEU Faculty Manual, 2011). In terms of the Academic Ranks and Standards for Appointment, UAEU Chancellor Decree Number: 40/2006 specifies the academic ranks as: assistant professors, associate professors, and professors. An assistant professor must have a Ph.D. or its equivalent from an accredited university and be qualified as an able teacher and exhibit other qualifications as may be stipulated by individual colleges. An associate professor should hold a Ph.D., have written and published original academic research and have spent at least four years as a full-time faculty member at the rank of assistant professor. A professor should hold a Ph.D., have conducted and published original research in his/her specialization and have spent at least five years as a full-time faculty member at the rank of associate professor.

5.2.6 UAEU Academic and Curricula Profile

As stated earlier, the University began with four faculties or colleges. These were: The Faculty of Arts; The Faculty of Science; The Faculty of Education, and The College of Business and Economics, known then as the Faculty of Administrative and Political Sciences. Today, UAEU has nine faculties, hosting a range of academic disciplines and departments. These are:

- Faculty of Humanities and Social Sciences
- Faculty of Science
- Faculty of Education
- Faculty of Business and Economics
- Faculty of Law
- Faculty of Food and Agriculture
- Faculty of Engineering
- Faculty of Medicine and Health Sciences
- Faculty of Information Technology

A listing of all undergraduate and graduate degrees offered by faculty/college is listed in tables 11 and 12.

Table 11: UAEU Undergraduate and Graduate Degrees Offered by Faculty/College

UAEU Baccalaureate Program Offerings – 2011/2012

Faculty of Business and Economics
• Bachelor in Banking and Finance
• Bachelor in Accounting
• Bachelor in Economics
• Bachelor in Statistics
• Bachelor in Management Information Systems
• Bachelor in Business Administration (Marketing)
• Bachelor in Business Administration (Supply Chain Management and Logistics)
• Bachelor in Business Administration (Entrepreneurship)
• Bachelor in Business Administration (Human Resources Management and Development)
Faculty of Education*
• Bachelor of Education with Teaching License (Early Childhood Education)
• Bachelor of Education with Teaching License (Elementary Education: Islamic Studies and Arabic)
• Bachelor of Education with Teaching License (Elementary Education: Mathematics and Science)
• Bachelor of Education with Teaching License (Elementary Education: Social Studies and Civics)
• Bachelor of Education with Teaching License (Elementary Education: English)
• Bachelor of Education with Teaching License (Special Education: Mild / Moderate Disabilities)
• Bachelor of Education with Teaching License (Special Education: Gifted and Talented)
• Professional Diploma in Teaching

Note:

* For female students only.

Source: Your Guide to Higher Education. Napo National Admissions and Placement Office. Also Available at : <https://www.mohe.gov.ae/en/Documents/napo1.pdf>

Faculty of Engineering	
• Bachelor of Science in Architectural Engineering	
• Bachelor of Science in Civil Engineering	
• Bachelor of Science in Chemical Engineering	
• Bachelor of Science in Electrical Engineering	
• Bachelor of Science in Communication Engineering	
• Bachelor of Science in Mechanical Engineering	
• Bachelor of Science in Petroleum Engineering	
Faculty of Food and Agriculture	
• Bachelor in Agribusiness	
• Bachelor in Consumer Science	
• Bachelor in Dietetics	
• Bachelor in Horticulture	
• Bachelor in Marine Fisheries and Animal Science	
• Bachelor in Nutritional Science	
• Bachelor in Food Science	
Faculty of Humanities and Social Sciences	
• Bachelor of Arts in Geography	
• Bachelor of Arts in Mass Communication	
• Bachelor of Arts in Arabic Language and Literature	
• Bachelor of Arts in English Literature	
• Bachelor of Arts in Linguistics	
• Bachelor of Arts in History	
• Bachelor of Arts in Applied Linguistics / TESOL	
• Bachelor of Arts in Political Sciences	
• Bachelor of Arts in Psychology	
• Bachelor of Social Work	
• Bachelor of Arts in Sociology	
• Bachelor of Arts in Translation Studies	

Faculty of Humanities and Social Sciences (cont.)
• Bachelor of Arts in Philosophy
• Bachelor of Arts in Leadership and Society
• Bachelor of Arts in Tourism Studies
• Bachelor of Arts in French Language
• Bachelor of Arts, Double Major (any two programs offered by the Faculty)
Faculty of Information Technology
• Bachelor of Science in Information Technology (Computer Systems Design)
• Bachelor of Science in Information Technology (Intelligent Systems)
• Bachelor of Science in Information Technology (Electronic Commerce)
• Bachelor of Science in Information Technology (Information Security)
• Bachelor of Science in Information Technology (Enterprise Systems)
• Bachelor of Science in Information Technology (Networking)
• Bachelor of Science in Information Technology (Software Development)
Faculty of Law
• Bachelor of Law
Faculty of Medicine and Human Sciences
• Bachelor of Medicine and Surgery (MBBS)
Faculty of Science
• Bachelor of Science in Mathematics
• Bachelor of Science in Physics
• Bachelor of Science in Chemistry
• Bachelor of Science in Biology (General Biology Track)
• Bachelor of Science in Biology (Cellular and Molecular Biology Track)
• Bachelor of Science in Biology (Environmental Biology Track)
• Bachelor of Science in Geology (Applied Geology Track)
• Bachelor of Science in Geology (Petroleum Geology Track)

Applied Communications Division	
Bachelor of Applied Science	Applied Communications (Common Year)
Business Division	
Bachelor of Applied Science	Business Administration (Common Year)
Education Division	
Bachelor	Education (Common Year)
Engineering Technology Division	
Bachelor	Aviation Maintenance Technology (Airframe and Aeroengines)
	Aviation Maintenance Technology (Avionics)
Bachelor of Applied Science	Biomedical Engineering Technology
	Chemical Engineering Technology
	Civil Engineering Technology
	Electrical / Electronic Engineering Technology
	Mechanical / Mechatronic Engineering Technology
Health Sciences Division	
Bachelor of Applied Science	Community Health
Bachelor	Dental Hygiene
	Health Care Administration and Leadership
	Medical Laboratory Science
	Pharmacy
	Social Work
Bachelor of Science	Health Information Management
	Medical Imaging
	Nursing
Computer and Information Science Division	
Bachelor of Applied Science	Computer Science
	Computer Information (Common Year)

Table 12: UAEU Graduate Programs by Faculty

COLLEGE	PROGRAM
Science and Engineering	Master of Science in Environmental Science
Business and Economics	Master of Business Administration
Education	Master of Education
Education	Education Diploma
Food and Agriculture	Master of Science in Horticulture Sciences
Humanities and Social Sciences	Master of Science in Remote Sensing and GIS
Engineering	Master of Science in Civil Engineering
Engineering	Master of Science in Electrical Engineering
Engineering	Master of Science in Mechanical Engineering
Engineering and Science	Master of Science in Material Science and Engineering
Engineering and Science	Master of Science in Water Resources
Engineering	Master of Engineering Management
Engineering	Master of Petroleum Science Engineering

.Source: GRADUATE PROGRAMS AT UAEU. Also available on An Overview of academic Affairs at UAEU. Donald E Bowen. Available at : www.uaeu.ac.ae/apaa/power_point/20090827_bowen.ppt

According to the UAEU admission policy (ACA-ADMN-01) “The United Arab Emirates University shall establish requirements governing admission in conformity with the policies of the Ministry of Higher Education and Scientific Research”. A minimum of 70% in the General Secondary Certificate will be required from pupils. Admission applications to the UAE University will be processed in complete coordination through a central admission office, the National Admissions and Placement Office (NAPO) based in the Ministry of Higher Education and Scientific Research. From time to time, the University will survey the needs of the United Arab Emirates job market for graduates from various specializations and determine the number of students to be admitted to each academic program.

The admission criteria to UAEU includes A pass in the CEPA-English exam, in addition to a minimum average of 75% on the GSC exam or its equivalent, to be eligible for baccalaureate programs at all faculties at UAEU, except for Medicine and Health Sciences which requires not less than 85% on the GSC exam or its equivalent. The academic requirements for direct entry to baccalaureate programs at UAEU have increased to a minimum IELTS (Academic Module) score of 5.0 or a TOEFL (Internet-based test) score of 61 (UAEU Catalogue, 2012; UAE Web Site, 2012; MOHER Web Site, 2012).

For a Master's degree the student shall be a holder of an academic degree from an accredited university, with a minimum grade point average equivalent to good, and a minimum average of very good (3 points out of 4 or equivalent). UAEU adopts the credit hour system as a basis for its educational system and organizes its educational process on a semester basis. The academic year is divided into two semesters, the duration of which is 16 weeks, plus the final examinations period. A summer semester may be organized for a minimum duration of six weeks, with a minimum of 15 contact lecture hours corresponding to each credit hour. Curricula for the academic departments, units or programs is organized in such a way whereby the minimum number of credit hours required for obtaining a Bachelor degree is 120 credit hours. Table 13 displays UAEU course ratings and CPA and AGPA average.

Table 13: UAEU Course Rating System.

Course Ratings			
Grade	Percentage	Code	Point Value
Excellent	90-100	A	4
Very Good +	85- less than 90	B+	3.5
Very Good	80- less than 85	B	3
Good +	75- less than 80	C+	2.5
Good	70- less than 75	C	2
Fail	Less than 70	D	0

GPA and AGPA		
Grade	Code	Average
Excellent	A	3.7-4
Very Good	B	3.3- less than 3.7
Good	C	3- less than 3.3
Fair	D	Less than 3

Source : UAEU Bylaws 2010

Table 14 lists many of UAEU programs and their accredited status.

*Table 14 : UAEU Accreditation***College of Science**

Degree type	Fields of study in which it is awarded	Accreditation
Bachelor of Science	Chemistry	CSC

College of Education

Degree type	Fields of study in which it is awarded	Accreditation
Diploma	Professional Diploma in Teaching	CQAIE
Bachelor in Education	Early Childhood Education Teaching License	CQAIE
Bachelor in Education	Elementary Education Teaching License (Islamic Studies & Arabic Language Concentration)	CQAIE
Bachelor in Education	Elementary Education Teaching License (Mathematics and Science Concentration)	CQAIE
Bachelor in Education	Elementary Education Teaching License (Social Studies and Civics Concentration)	CQAIE
Bachelor in Education	Elementary Education Teach License (English Concentration)	CQAIE
Bachelor in Education	Special Education Teaching License (Mild and Moderate Disabilities Concentration)	CQAIE
Bachelor in Education	Special Education Teaching License (Sensory Impairments Concentration)	CQAIE
Bachelor in Education	Special Education Teaching License (Severe Disabilities Concentration)	CQAIE
Bachelor in Education	Special Education Teaching License (Gifted and Talented Concentration)	CQAIE

College of Business & Economics

Degree type	Fields of study in which it is awarded	Accreditation
Bachelor of Accounting	Accounting	AACSB
Bachelor of Economics	Economics	AACSB
Bachelor of Business Administration	Management	AACSB
Bachelor of Business Administration	Marketing	AACSB
Bachelor of Finance and Banking	Finance and Banking	AACSB
Bachelor of Statistics	Statistics	AACSB
Bachelor of Management Information Systems	Management Information Systems	AACSB

College of Engineering

Degree type	Fields of study in which it is awarded	Accreditation
Bachelor of Science in Engineering	Civil Engineering	ABET
Bachelor of Science in Engineering	Chemical Engineering	ABET
Bachelor of Science in Engineering	Petroleum Engineering Men Only	ABET
Bachelor of Science in Engineering	Architectural Engineering (Architectural Engineering Concentration)	ABET
Bachelor of Science in Engineering	Electrical Engineering	ABET
Bachelor of Science in Engineering	Electrical Engineering (Communications Concentration)	ABET
Bachelor of Science in Engineering	Mechanical Engineering	ABET

College of Information Technology

Degree type	Fields of study in which it is awarded	(Applying For)
Bachelor of Science	Computer Science	ABET
Bachelor of Science	Computer System Engineering	ABET
Bachelor of Science	Information Systems	ABET
Bachelor of Science	Electronic Commerce	ABET
Bachelor of Science	Software Engineering	ABET
Bachelor of Science	Network Engineering	ABET
Bachelor of Science	Information Security	ABET

College of Food & Agriculture

Degree type	Fields of study in which it is awarded	Accreditation
Bachelor of Science	Horticulture	AIC
Bachelor of Science	Agribusiness	AIC
Bachelor of Science	Marine Fisheries & Animal Sciences	AIC
Bachelor of Science	Dietetics	ADA (under process)

Source: The Institutional Effectiveness and Planning Support Unit. Available at: http://www.uaeu.ac.ae/irpsu/irpsu_uaeu_accreditation.shtml

5.3 Higher Colleges of Technology (HCT)

5.3.1 Introduction

Although the UAEU was spoken of as the national aspiration of higher education in the UAE in the 1980s, it was evident that the university did not meet the needs of the rapidly changing society of the UAE. The large number of graduates of the UAEU was still entering the workforce unskilled. In addition, the UAEU was steeped in problems related to clarity of purpose and accountability. As a result, by 1988 talks about a possible solution - “polytechnics” - became more serious. A new “un-Egyptianized” direction was considered. Many of the political factors that existed when UAEU was launched were not in place this time. In addition, as the UAE matured and developed as a nation, it learned as a nation that ‘Arabness’ and Islam are not the sum of UAE identity. There was a growing conversation in the country about the “local” factor. That conversation lasted between 1976 and 1992. In addition, UAE nationals felt overpowered by the overwhelming Egyptian presence in local and national events. That Egyptian presence was seen as non-local and on some occasions contrary to the local UAE customs and traditions. Moreover, the Egyptian model was also viewed as an impediment to the establishment of a better system, especially when US-based systems were widely perceived to be the future of higher education. While all the above is important, the key challenge was how to set up a system that was self-sustaining. The Egyptian model was seen as strong not only because of the convictions of a few individuals but rather a workforce that had been entering, evolving and strengthening in the national and educational infrastructure since before federation. As a result, and despite the shortage of suitably qualified Emirati staff, the UAE took some practical steps to address this issue by the creation in 1992 of the Ministry of Higher Education and Scientific Research (MOHE) that took higher education out of the hands of the predominantly Egyptian staffed Ministry of Education. Higher education was redefined and repackaged in the context of a ‘national’ culture that emphasizes its GCC connections over pan-Arab, pan-Islamic ones. This was clearly seen in the case of the development of HCT where, unlike UAEU, the staff listing gives a very different picture of the Egyptian presence, with only twelve Egyptians out of a total 936 faculty in 1998 (Findlow, 2001).

The implementation of the HCT was speedier than the UAEU. The consultation was conducted by Educonsult instead of the bringing together of traditional-minds in the UAE. The purpose of HCT was not to create a polytechnic to produce graduate technicians; instead it was an institution intended to train high school graduates to obtain diplomas and high-diplomas in technology, business, health science, and applied arts at the university level. The HCT website states “the purpose of the system is to prepare and train nationals in order to meet the country’s requirements”.

The first four colleges, each with segregated sites for men and women, were opened in Abu Dhabi and AL-Ain. The following year, colleges were opened in Dubai. Faculty members mainly came from the US, UK and Canada. Arab expatriates were mainly employed on the administrative side. By the early 1990s the Higher Colleges of Technology expanded to more states and became very popular (Findlow, 2001). Today, HCT has over 19,000 students attending 17 modern men’s and women’s campuses. HCT offers over 90 different English-taught programs in Applied Communications, Business, Engineering, Information Technology (IT), Health Sciences and Education at various levels (HCT Catalogue, 2012).

5.3.2 HCT Vision, Mission and Goals

The mission statement of HCT is “to be dedicated to the delivery of technical and professional programs of the highest quality to the students, within the context of sincere respect for diverse beliefs and values. Graduates will have the linguistic ability to function effectively in an international environment, the technical skills to operate in an increasingly complex technological world, the intellectual capacity to adapt to constant change, the commitment to sustainable development and the leadership potential to make the greatest possible contribution to the community for the good of all its members and stakeholders”. HCT vision statement is “to be an internationally recognized and accredited provider of professionally oriented tertiary education” (HCT Catalogue 2012). HCT identifies eight graduate outcomes as their goals:

- Communication and Information Literacy
- Critical and Creative Thinking
- Global Awareness and Citizenship
- Technological Literacy
- Self-Management and Independent Learning
- Teamwork and Leadership
- Vocational Competencies
- Mathematical Literacy

5.3.3 HCT Organization and Administrative Profile

The Higher Colleges of Technology were established under Federal Law No. 2 of 1988 and later re-organized under Federal Law no.17 of 1998. HCT offers degrees at the Bachelor, Higher Diploma, and Diploma levels; and operates as a system of 17 separate campuses for male and female students in five Emirates with the headquarters being located in the city of Abu Dhabi. Similar to UAEU, HCT is governed by a Governing Council which includes the Chancellor, the Vice Chancellor, and other qualified and experienced members from various sectors in the UAE appointed by the Cabinet on the recommendation of the Chancellor. The Chancellor is the legal representative of the system. The Vice-Chancellor is responsible for the management of the HCT and the implementation of its regulations and resolutions. The central administration, under the Office of the Provost, comprises Academic Central Services and Central Services directorates. Central Administration performs the various functions and services to enable the campuses to achieve their educational objectives. HCT's Central Services comprises various units including Academic Accreditation, Community Relations, Finance, Human Resources, and Technology and Administration. (www.hct.ac.ae, retrieved 05/01/2012). The Academic Central Services Directorate (ACS) provides academic leadership, academic policy and planning guidance, coordination and evaluation of instructional programs and processes, academic standards and assessment, and learning resources in support of the implementation of academic programs. There are seven academic divisions, namely: Applied Communications, Business, Computer and Information Sciences, Education, Engineering Technology, General

Education, and Health Sciences. Each campus is headed by a Director who is responsible for the overall leadership of staff, students and campus life, educational programming, quality improvement, financial and human resources, planning, appointment of staff, marketing, and assessment of performance (HCT Catalogue, 2012). Table 15 shows the various locations of HCT campuses, when they were founded, and the name and contact information of the campus director.

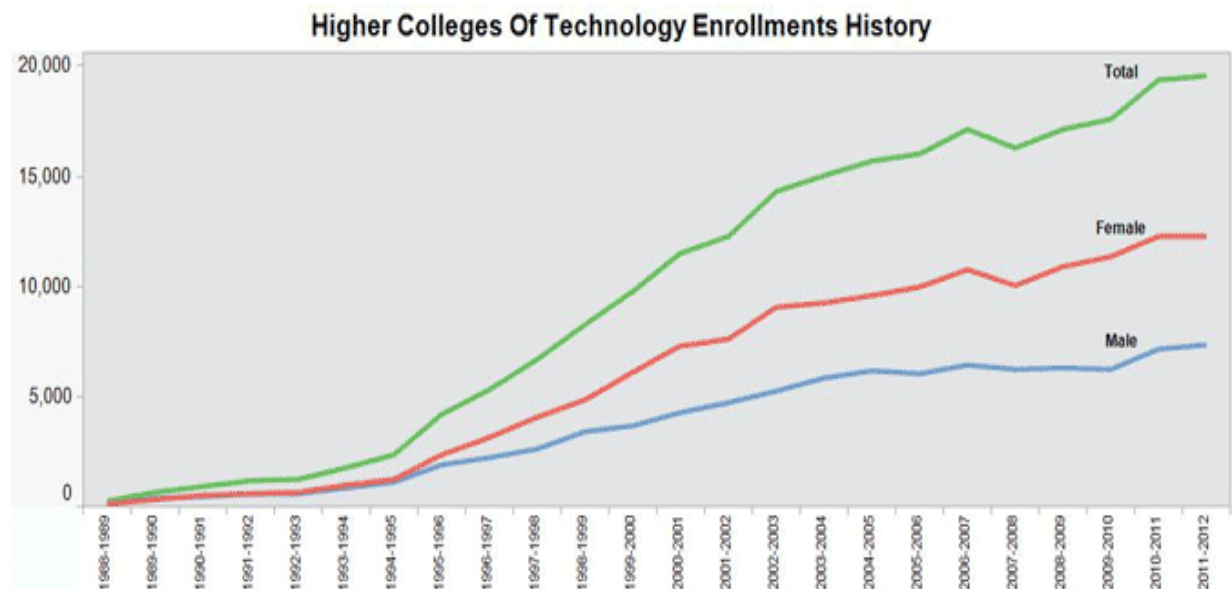
Table 15: HCT Campuses Locations, Founding Year, and Director Name and Contact Information

CAMPUS	FOUNDED	DIRECTOR	TELEPHONE	FAX	PO Box	WEB
Al Ain Men's College	1988	Mr. Timothy Smith	03-782 0888	03-782 0099	17155	aam.hct.ac.ae/
Al Ain Women's College	1988	Mr. Timothy Smith	03-782 0777	03-782 0766	17258	aaw.hct.ac.ae/
Abu Dhabi Men's College	1988	Dr. Simon Jones	02-445 1514	02-445 1571	25035	www.admc.hct.ac.ae/
Abu Dhabi Women's College	1995	Dr. Jace Hargis	02-641 3839	02-641 3456	41012	www.adwc.hct.ac.ae/
Dubai Men's College	1989	Dr. Leo Chavez	04-326 0333	04-326 0303	15825	dbm.hct.ac.ae/
Dubai Women's College	1989	Dr. Howard Reed	04-267 2929	04-267 3939	16062	dwc.hct.ac.ae/
Fujairah Men's College	1989	Dr. David Pelham	09-222 2112	09-222 2113	4114	fjw.hct.ac.ae/
Fujairah Women's College	2004	Dr. David Pelham	09-228 1212	09-228 1313	1626	fjw.hct.ac.ae/
Madinat Zayed Men's College	2006	Dr. Philip Quirke	02-894 3700	02-884 9081	58855	mzc.hct.ac.ae
Madinat Zayed Women's College	2006	Dr. Philip Quirke	02-884 3700	02-884 9081	58855	mzc.hct.ac.ae
Ras Al Khaimah Men's College	1999	Dr. Robert Moulton	07-221 2999	07-221 1611	4793	rkm.hct.ac.ae/
Ras Al Khaimah Women's College	1993	Dr. Robert Moulton	07-221 0550	07-221 0660	4792	rkw.hct.ac.ae/
Ruwais Men's College	2007	Dr. Philip Quirke	02-8943800	02-8778158	58855	-
Ruwais Women's College	2007	Dr. Philip Quirke	02-8943800	02-8778158	58855	-
Sharjah Men's College	1993	Dr. Farid Ohan	06-558 5222	06-558 5252	7946	sjm.hct.ac.ae/
Sharjah Women's College	1998	Dr. Farid Ohan	06-558 5333	06-558 5353	7947	sjw.hct.ac.ae/

5.3.4 HCT Student Profile

HCT enrolls students in six academic Divisions which include Applied Communications, Business, Education, Engineering Technology, Health Sciences and Information Technology. Within these Divisions, Students are enrolled in one of the following programs: Bachelor, higher diploma and diploma. HCT, through the General Education Division, also offers preparatory programs which enable students to gain access to the professional credentials above or directly into the workplace. Figure 13 illustrates the growth of HCT's enrollment for both male and female students over the past 13 years. The figure shows an enrolment increase from less than 5,000 in 1998 to almost 20,000 in 2011.

Figure 13: HCT Enrolment Trends by Gender



Source: Office of Institutional Research. Also available at: <http://www.hct.ac.ae>

HCT's Business program has the highest enrollments followed by Computer and Information Science. The Bachelor level has the highest enrollments compared to the diploma and higher diploma levels. The Men's and Women's Colleges in Abu Dhabi have the most enrollments, followed by the Sharjah's Women's College. Tables 16, 17 and 18 display HCT enrollment trends and the breakdown of enrolments by program, degree and campus location. Tables 19 and 20 display the

number of HCT graduates by school, diploma types and academic year. Figure 14 shows the HCT graduate numbers by gender since their inception to 2011.

Table 16: HCT Enrolment Trends by Program

	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
General Education	5,718	5,669	6,128	5,773	7,360
Applied Communications	398	433	488	660	672
Business	5,053	5,666	5,662	6,667	5,396
Education	475	563	608	685	584
Engineering Technology	1,714	1,901	1,940	2,621	2,538
Health Sciences	403	562	617	581	531
Computer & Information Science	2,324	2,059	2,111	2,383	2,434
Total	16,085	16,853	17,554	19,370	19,515

Enrollment Count as at 29th September, 2011.

Source: HCT Annual Report 2011

Table 17: HCT Enrolments by Degree and Program

	Bachelor	Higher Diploma	Diploma	Foundations	Grand Total
General Education	-	-	-	7,360	7,360
Applied Communications	572	-	100	-	672
Business	3,956	83	1,357	-	5,396
Education	531	-	53	-	584
Engineering Technology	2,114	180	244	-	2,538
Health Sciences	433	2	96	-	531
Computer & Information Science	1,715	26	693	-	2,434
Total	9,321	291	2,543	7,360	19,515

Enrollment Count as at 29th September, 2011.

Source: HCT Annual Report 2011

Table 18: HCT Enrolments by Campus Location

ENROLLMENTS BY COLLEGE**Academic Year 2011-2012**

During the Academic Year 2011-2012, 19,515 students are enrolled in one of 16 campuses located

	No. of Enrollments
Abu Dhabi Men's College	2,657
Abu Dhabi Women's College	2,577
Al Ain Men's College	642
Al Ain Women's College	1,610
Dubai Men's College	2,127
Dubai Women's College	2,332
Fujairah Men's College	410
Fujairah Women's College	1,424
Madinat Zayed Men's College	42
Madinat Zayed Women's College	218
Ras Al Khaimah Men's College	583
Ras Al Khaimah Women's College	1,325
Ruwais Men's College	94
Ruwais Women's College	247
Sharjah Men's College	861
Sharjah Women's College	2,366
Total	19,515

Enrollment Count as at 29th September, 2011.

Source: HCT Annual Report 2011

Table 19: HCT Graduation Trends by Program

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011
Applied Communications	103	140	118	194	164
Business	1,282	1,830	1,770	1,895	1,793
Education	89	107	152	149	151
Engineering Technology	502	603	676	671	643
Health Sciences	196	219	304	346	296
Computer & Information Science	1,263	1,344	1,000	936	815
Total*	3,435	4,243	4,020	4,191	3,862

* Total based on number of credentials earned.

Source: HCT Annual Report 2011

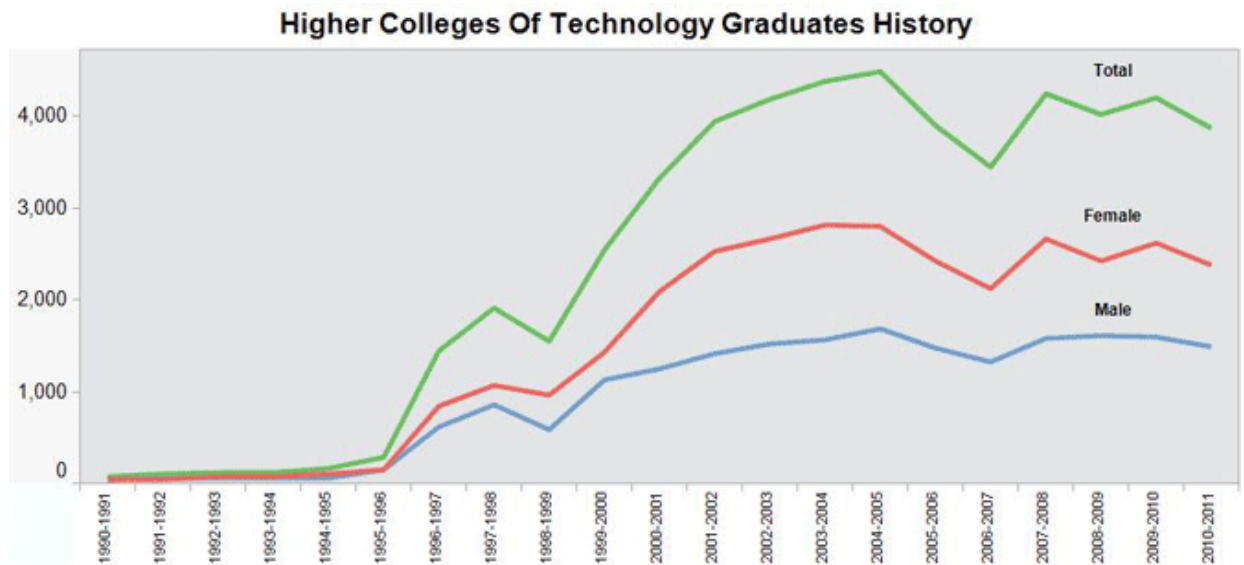
Table 20: HCT Graduation Numbers by Degree and Program

	Masters	Bachelor	Higher Diploma	Diploma	Grand Total*
Applied Communications	-	59	75	30	164
Business	91	333	598	771	1,793
Computer & Information Science	1	170	338	306	815
Education	24	95	-	32	151
Engineering Technology	-	122	352	169	643
Health Sciences	-	93	100	103	296
Total*	116	872	1,463	1,411	3,862

* Totals based on number of credentials earned.

Source: HCT Annual Report 2011

Figure 14: HCT Graduation Numbers by Gender



Source: HCT Annual Report 2011

5.3.5 HCT Faculty Profile

The deans of the Academic Divisions provide academic leadership to ensure that the quality of teaching, learning, evaluation and assessment is maintained. The table below displays the number of all employees and number of faculty per campus location as provided in the HCT 2012 annual report. No further information regarding ranks or nationalities or annual evaluations was provided.

Table 21: HCT Faculty and Staff by Campus Location

HCT STAFF

Academic Year 2011-2012

	Total Employees ¹	No. of Faculty
Abu Dhabi Men's College	237	146
Abu Dhabi Women's College	222	133
Al Ain Men's College	68	33
Al Ain Women's College	157	88
Dubai Men's College	181	97
Dubai Women's College	204	120
Fujairah Men's College	47	21
Fujairah Women's College	123	71
Madinat Zayed Men's College	47	18
Ras Al Khaimah Men's College	52	26
Ras Al Khaimah Women's College	121	71
Ruwais Women's College	32	16
Sharjah Men's College	90	47
Sharjah Women's College	188	116
Academic & Central Services	174	-
Total*	1,943	1,003

In The Academic Year (AY) 2011-12 staff at HCT represented 67 different Nationalities.

* Totals as at 29th September, 2011.

Faculty – a category of higher education employees that comprise the teaching component of the institution (System).

Source: HCT Annual Report 2011

5.3.6 HCT Academic and Curricula Profile

HCT has identified the following graduate characteristics under four categories that should guide program and course development and approaches to teaching and assessment: knowledge of core subjects and global issues; learning and innovation skills; information, media, and technology skills; transferable lifelong characteristics. The following is a list of the undergraduate programs offered by Division

Applied Communications Division

Bachelor of Applied Science in Applied Communication - Corporate Communication

Bachelor of Applied Science in Applied Communication - Fashion Design and Merchandising

Business Division

Bachelor of Applied Sciences (4 years) Business Administration

Bachelor of Applied Sciences (one year post higher diploma)

- i. Business Administration
- ii. Accounting
- iii. Financial services
- iv. Human resources
- v. Marketing
- vi. Quality management
- vii. E-business management
- viii. Engineering management

Education Division

Bachelor of Education Degree

Early Childhood Education

English Language Teaching in Schools

Educational Technology

The **Associate Degree** specialization is: **Teacher Support**

Engineering Technology Division

Bachelor of Applied Science in Aviation Maintenance Technology

- i. Airframe and Aeroengines
- ii. Avionics

Bachelor of Applied Science

- i. Biomedical Engineering Technology
- ii. Chemical Engineering Technology
- iii. Civil Engineering Technology
- iv. Electrical/Electronic Engineering Technology
- v. Mechanical/Mechatronic Engineering Technology

Health Sciences Division

Bachelor of Applied Science in Food Science and Technology

- i. Dental Hygiene
- ii. Health Care Administration and Leadership
- iii. Medical Laboratory Science
- iv. Pharmacy
- v. Social Work

Bachelor of Science

- i. Health Information Management
- ii. Medical Imaging
- iii. Nursing

Computer and Information Science Division

Bachelor of Applied Science

- i. Computer Information
- ii. Business Information Technology
- iii. Computer Network Technology
- iv. Information Management

Graduate Degree Programs

- 1. Doctor of Business Administration
- 2. Executive Master of Business and Administration (EMBA)
- 3. Master of Engineering
- 4. Master of Information Technology
- 5. Master of Cultural and Creative Industries
- 6. MSc in Food Safety Management
- 7. M.Sc. in Human Resource Management
- 8. Master of Educational Studies

The learning model defines the HCT's educational philosophy and identifies eight graduate outcomes:

Graduate Outcome One: Communication and Information Literacy

Graduate Outcome Two: Critical and Creative Thinking
 Graduate Outcome Three: Global Awareness and Citizenship
 Graduate Outcome Four: Technological Literacy
 Graduate Outcome Five: Self-Management and Independent Learning
 Graduate Outcome Six: Teamwork and Leadership
 Graduate Outcome Seven: Vocational Competencies
 Graduate Outcome Eight: Mathematical Literacy

HCT has a number of programs of study accredited by the accrediting bodies of the US Council for Higher Education Accreditation (CHEA) and it is also pursuing institutional accreditation from an accrediting body recognized by CHEA. HCT have formed alliances with leading universities, educational associations and professional accreditation boards around the world to ensure their programs meet technology and industry standards. Table 22 shows some of the HCT programs and their accreditation status.

Table 22: HCT Programs and Accreditation Status

Program of Study	Accreditation/Benchmarking
Business	<p>The Higher Diploma & Bachelor of Applied Science in Business is accredited by the Association of Collegiate Business Schools and Programs (ACBSP, USA) to offer the following business degrees:</p> <ul style="list-style-type: none"> Associate Degrees (Higher Diploma) Business Common Core Business and Management (Accounting) Business and Management (Financial Services) Business and Management (General) Business and Management (Human Resources) Business and Management (Marketing) Business and Management (Travel and Tourism) eBusiness Management Bachelor of Applied Science Degrees Business and Management (Accounting) Business and Management (General) eBusiness Management Engineering Management
Education	<ul style="list-style-type: none"> The Education Division has been accepted as a candidate for accreditation for the Bachelor of Education degree in English Language Teaching in Schools (ELTS) through the

	<p>Teacher Education Accreditation Council (TEAC), USA.</p> <ul style="list-style-type: none"> • The Diploma in Classroom Assistant is accredited by the Scottish Qualifications Authority (SQA), UK.
Engineering Technology	<ul style="list-style-type: none"> • Chemical Engineering programs are accredited by the Chemical Engineering Institute of Chemical Engineers (ICHEME), UK. • The Aviation programs are licensed by the UAE General Civil Aviation Authority. • The Civil Engineering Technology Higher Diploma and Bachelor of Applied Science programs are accredited by the ABET-Technology Accreditation Commission (ABET-TAC), USA.
Health Sciences	<ul style="list-style-type: none"> • The BSc in Medical Laboratory Technology program is accredited by the Institute of Biomedical Science (IBMS), UK. • The Bachelor of Pharmacy program was reviewed by the Canadian Council for Accreditation of Pharmacy (CCAP) in 2007. • The Higher Diploma Paramedics program is externally reviewed through Harrisburg Community College, Harrisburg, Pennsylvania. Graduates are eligible to undergo the Department of Transportation (DOT) National Registry exam. • The BAS in Health Information Management program is accredited by the Health Information Management Association of Australia (HIMAA). • The BAS in Medical Imaging program is accredited by the College of Radiographers (UK).
Information Technology	<ul style="list-style-type: none"> • The HCT BAS and HD programs are accredited by the Canadian Information Processing Society (CIPS).

Source: HCT Annual Report 2011

In terms of admission requirements, HCT requires high school graduates to have completed a minimum of GSC and CEPA scores as defined by HCT (CEPA-English 180 or greater, CEPA-Math 170 or greater). Priority is given to students with higher scores if space availability is limited. Table 23 shows HCT admission requirements.

Table 23: HCT Admission Requirements

BACHELOR DEGREE (Continued)	
	<ul style="list-style-type: none"> ▶ an appreciation of the uncertainty, ambiguity and limits of knowledge; ▶ an ability to manage their own learning, and to make use of scholarly reviews and primary sources (e.g. referred research articles and/or original materials appropriate to their discipline); ▶ an ability to apply the methods and techniques that they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects; ▶ an ability to evaluate arguments, assumptions, abstract concepts and qualitative and quantitative data (that may be incomplete), to make judgments, and to frame appropriate questions to identify a solution or a range of solutions to a problem; ▶ an ability to make connections between a range of environmental and ethical issues in both global and UAE contexts and an awareness of the individual citizen's social responsibility with respect to those issues; ▶ an ability to communicate information, ideas, problems, and solutions to both specialist and non-specialist audiences using a range of tools; ▶ qualities and transferable skills necessary for employment, requiring: <ul style="list-style-type: none"> ▶ the exercise of initiative and personal responsibility; ▶ decision-making in complex and unpredictable contexts; ▶ the learning ability needed to undertake appropriate further training of a professional or equivalent nature; ▶ the ability to function effectively in teams, both as team member and leader.
GRADUATION REQUIREMENTS	<ul style="list-style-type: none"> ▶ Successful completion of all program requirements ▶ Minimum Credit Units(1): 120 ▶ Cumulative GPA 2.0 or greater ▶ Successful completion of Work Experience
BACHELOR DEGREE (1-YEAR TOP-UP PROGRAMS)	
MINIMUM ADMISSION REQUIREMENTS	PROGRAM ENTRY CRITERIA <ul style="list-style-type: none"> ▶ A relevant qualifying HCT Higher Diploma with the level of achievement required for the particular program, or an equivalent qualification; and ▶ Appropriate work experience or similar requirements, as specified for each program major; and ▶ A cumulative GPA of at least 2.50 or above in the qualifying Higher Diploma (N.B. A student with a cumulative GPA below 2.50 and a minimum of two years of work experience may apply to be considered for admission by submitting a portfolio); and ▶ IELTS (Academic) overall band 5.5, with no skill below 5.0, or equivalent
GRADUATION REQUIREMENTS	<ul style="list-style-type: none"> ▶ Successful completion of all program requirements ▶ Cumulative GPA of 2.0 or greater

BACHELOR DEGREE (4-YEAR PROGRAMS)	
MINIMUM ADMISSION REQUIREMENTS	<p>HCT ADMISSION REQUIREMENTS:</p> <p>UAE nationals are eligible for admission to the Higher Colleges of Technology (HCT), provided that they:</p> <ol style="list-style-type: none"> 1. possess a valid UAE passport and UAE National ID card, and 2. have reached 17 years of age before the start date in the academic year of admission, and 3. possess a valid medical certificate, and 4. have completed the Common Educational Placement Assessment (CEPA), and 5. have passed the government secondary General School Certificate (GSC), or equivalent. <p>PROGRAM ENTRY CRITERIA</p> <p>Students who have obtained the following CEPA scores for English and Math (or equivalent) have met minimum requirements for direct entry to the bachelor program of their choice:</p> <ul style="list-style-type: none"> ▶ CEPA English: 180 with CEPA Writing Band 5 (IELTS Academic module overall band 5.0) or equivalent ▶ CEPA Math: 170 or equivalent <p>Equivalent levels of internationally recognized examinations such as TOEFL will be taken into consideration when deciding applicant placement into program, provided that they were obtained from HCT-recognized test centres.</p>
CREDENTIAL CHARACTERISTICS	<p>HCT Bachelor programs prepare graduates for positions within a profession and are awarded to students who have demonstrated:</p> <ul style="list-style-type: none"> ▶ a systematic understanding of key aspects of their field of study, including acquisition of coherent and detailed knowledge at least some of which is at or is informed by the forefront of defined aspects of their discipline; ▶ an ability to evaluate, select and use tools and technologies appropriate for their field of employment; ▶ an ability to deploy accurately established techniques of analysis and enquiry within their discipline; ▶ conceptual understanding that enables them: <ul style="list-style-type: none"> ▶ to devise and sustain arguments, and/or to solve problems using ideas and techniques, some of which are at the forefront of their discipline; ▶ to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in their discipline;

Source: HCT Catalogue 2011. Available at: www.hct.ac.ae

Similar to the UAEU, HCT uses The Grade Point Average (GPA) system, which is computed on a scale from 0.00 to 4.00. The GPA is calculated by dividing the total number of grade points earned by the total credits attempted.

Table 24 : HCT Grading System

GRADING SYSTEM

GRADE	RANGE	GRADE POINTS	EXPLANATION OF CODES
A	90 – 100	4	Achievement that is outstanding relative to the course and GPA requirements
A-	85 – 89	3.7	
B+	80 – 84	3.3	Achievement that is significantly above the course and GPA requirements
B	75 – 79	3	
C+	70 – 74	2.3	Achievement that satisfactorily meets the course and GPA requirements
C	65 – 69	2	
D	60 – 64	1	Achievement that minimally meets the course requirements but may not meet the GPA requirement
F	0 – 59	0	Achievement that does not meet requirements for course with normal grading mode.

PROGRAM	GRADE	POINTS		CREDIT	GRADE POINTS
HPS 1706	A	4	x	6	24
LSM 1103	C+	2.3	x	3	6.9
HSC 1103	B	3	x	5	15
SCL 0111	CH		x		Not counted in GPA
HPS 1103	D	1	x	3	3
LSC 1103	F	0	x	3	0
Total				20	48.9

$$48.9 / 20 = 2.45 \text{ GPA}$$

Source : HCT Catalogue 2011. Available at: www.hct.ac.ae

5.4 ZAYED UNIVERSITY (ZU)

5.4.1 Introduction

After the creation of the Ministry of Higher Education, and the Higher Colleges of Technology, the UAE saw the need for the establishment of an authentically indigenous system that is in fact strongly Americanized. As of 2000, US-based systems were widely perceived to be the future of the country's higher education and perhaps the only way of maintaining global currency. This system can also be tailored to serve "localism" and promote the national identity of UAE nationals. At this point the Egyptian influence on higher education was not even a factor. Higher education was redefined between American experts and UAE nationals in charge of higher education. In fact, the Ministry's literature to this end stresses the importance of "... exposure to other countries and other post-secondary institutions ... (such as) ... the United States of America". (UAE. MOHE). In addition, 'Emiritization' has been presented as a case of national security. UAE national teachers were needed to develop and increase a sense of national awareness and local culture among the young. It was even argued that Emiritization was required to raise standards since expatriates on short-term contracts do not make a personal investment in the system.

The question then was "how can the UAE use the American model, and utilize it to its needs and goals, without compromising localism and Emiritization?". The answer came in 1995. The president of the UAE and the Minister of higher education, seeking to improve higher education in the UAE, appointed a committee (the advisory committee) to investigate the current status of higher education and possible ways to improve it. The committee was chaired by the past president of Michigan State University, along with eight experts in the field of higher education. The report of the advisory committee entitled 'Planning of Higher Education in the United Arab Emirates' recommended, on the basis of projected increases in enrollments, especially female students, to establish a new federal university for female students with a mission to advance UAE participation in the modern, global society. The university would focus on popular, less expensive programs, leaving more expensive programs (e.g. Medicine) to UAEU. Hence the birth of Zayed University.

Zayed University (ZU) was modeled more directly on the American System of higher education than either UAEU or HCT. The University's philosophy, pedagogy, faculty, and administration reflect experiences in the United States and the West. A US model of higher education was being adapted to fit and serve the country, and at the same time the style and substance of that model is influencing higher education in the UAE and is contributing to national development. The American orientation is manifest in a non-exam centered curriculum and methodology, as well as emphasis on outcomes education. The university personnel come from the US, Canada and the UK. The university requires a two-year foundation for students to develop general knowledge and skills before choosing a specialty, which is another rejection of the European approach and another aspect of the overall American orientation (Findlow, 2001). Although Zayed University is based on a US model, it stands apart from other universities in that it is a federal university and is not under the control of an overseas institution. The University's practices address the specific needs of its students and focus on preparing graduates to become a new generation of leaders in the UAE. While promoting openness in its students, the institution also encourages sensitivity on the part of the faculty to Islam and to the religious values and practices that shape students' sensibilities and form the national cultural context (Zayed University Self Study, 2008).

From less than 2,000 national female students in 1998, today the university is educating more than 7,121 students from 19 countries, including 342 male students in a separate facility. For the year 2010-2011 intake, Zayed University has succeeded in attracting male and female students from Africa, Asia, the Middle East, Europe and North America onto graduate and post-graduate courses, with chosen subjects ranging from Arts and Sciences, International Studies, General Education and the University's Academic Bridge Program which focuses on learning the English language. The 2010-2011 year is the second year in which students from outside of the UAE have been able to enroll at the university, and is the first time that the intake has included students from outside of the GCC (Zayed University web site, 2011).

5.4.2 ZU Vision, Mission and Goals

The vision of ZU is to “become the leading university in the region, embodying the same rigorous standards and intellectual elements found in major universities throughout the world” (Zayed University Website 2011). The university mission is directly derived from the government decree that created the university, “to seek to prepare students for meaningful and successful twenty first century personal and professional lives; to graduate students who will help shape the future of the region and the world; to support the economic and social advancement of the UAE; to lead innovation in higher education through teaching, learning, research, and outreach; and, to do so in a culturally diverse, humane, technologically advanced, and increasingly global environment” (ZU Catalog 2012). Zayed University distinguishes itself from both UAEU and HCT by emphasizing the development of students’ English and Arabic fluency, technological proficiency, and leadership. (Zayed University Self Study, 2008). Zayed University has five strategic goals. Each goal is divided into strategic objectives, and is accompanied by a number of initiatives and processes. Table 25 displays the five strategic goals, the objectives, and the accompanied processes. The University strategic goals are: Strengthen academic quality and support; support the development of the UAE; establish the prominence of the university within the global context; address the concerns of the university communities; and develop the infrastructure of the university (Zayed University Strategic Plan, 2008)

Table 25: Zayed University Strategic Goals, Objectives, and Initiatives.

STRATEGIC GOALS	STRATEGIC OBJECTIVES	INITIATIVES/PROCESSES
Strengthen academic quality and support	Strengthen faculty excellence	Deliver education to enrolled baccalaureate students*
	Improve academic and administrative support	Deliver Academic Bridge Program to unprepared students*
		Obtain all software and hardware required for fully up-to-date electronic support*
		Expand Library collections and access to scholarly materials*
		Provide for logistical and staff support to academic program*
		Contract for consultants to review and assess programs*
Support the development of the U.A.E.	Strengthen quality of graduate programs	Contract for international teams of qualified program reviewers*
	Provide academic support that enhances the well-being of the U.A.E.	Support research activities*
Establish Zayed University as a prominent university within the global environment	Support the employment of qualified U.A.E. nationals	Fill associate positions for U.A.E. nationals (National Development Program)*
	Strengthen relations with prominent international universities	Establish partnerships and cooperation with international universities*
	Promote Zayed University and its programs worldwide as a center of academic excellence in the Gulf Region	Conduct and publicize events that enhance the visibility of the University and its opportunities and achievements*

STRATEGIC GOALS	STRATEGIC OBJECTIVES	INITIATIVES/PROCESSES
Address concerns of the Zayed University community in a systematic manner	Provide a satisfying experience for the ZU community	Settle complaints about student services promptly
		Provide for employee participation in the developmental process
		Implement the suggestion system
		Train and professionally develop employees adequately*
		Train and professionally develop employees appropriate to their positions on an equal basis
Develop the infrastructure of the University	Complete campus facilities	Plan and supervise new construction*
		Supervise and maintain completed campus facilities*
	Manage finances efficiently	Diversify sources of University's revenue*

Source: Zayed University Strategic Plan 2006-2008.

5.4.3 ZU Organization and Administrative Profile

Currently, ZU has four campuses, two in Dubai and two in Abu Dhabi. It is led by a single administration. The University has a President who is advised by a Board of Visitors; a governing board, the University Council; a Vice President who oversees the entire University structure; a Provost who is responsible for overall operations and the academic mission of the University including its six Colleges; Deans of the Colleges and academic support units; and a Chief Administrative and Financial Officer who manages the University's financial, human, and physical facilities resources. Similar to UAEU and HCT, Zayed University's President is the nation's Minister of Higher Education and Scientific Research, and the University's Vice President is its Chief Executive Officer. The Vice President/CEO is an academically qualified national citizen with an understanding of the UAE's political, economic and social context. An expatriate leader thoroughly acquainted with US institutions, the Provost is the chief academic officer to whom the deans and student affairs administrators answer. The Chief Administrative and Financial Officer is charged to manage the University's financial, human, and physical facilities resources in support of the University's academic mission. The units headed by the University's deans, directors, and supervisors answer to these two administrators (ZU Annual Report, 2011).

Zayed University receives full government sponsorship for operating its campuses. The university also receives significant additional support, especially for physical facilities, from the Emirate-level governments of Abu Dhabi and Dubai. Government appropriations provided almost 97% of the University's revenue. The University's budget for 2004 was 210 million dirhams (approximately 57 million US dollars.) On the basis of a budget allocation made every three years, ZU presents a detailed budget proposal in the fall of each year to the UAE Ministry of Finance and Industry. A performance-based budgeting process requires that the University accompany its annual request with reports on Key Performance Indicators aligned to ZU's mission (Zayed University Self- Assessment, 2006). Table 26 identifies the federal and Emirate contributions to the budget for 2006-2008.

*Table 26: Federal and Emirates Contributions to budget (2006-2008)***Federal and Emirate Contributions to Budget (2006-2008)**

Year	Total (AED Millions)	Allocations
2006	210	Basic allocation (MoFI)
	25	Fit-out Dubai campus (MoFI)
2007	210	Basic allocation (MoFI)
	3	Housing supplement (MoFI)
	15	Fit-out for Dubai campus (MoFI)
	5.4	Fit-out for Knowledge Village (DM)
2008	210	Basic allocation (MoFI)
	10	Fit-out for Dubai campus (MoFI)
	3	Housing supplement (MoFI)
	1	Supplement for Health Insurance (MoFI)
	6	Technology Refresh (MoFI)

. Source: Zayed University Self-Assessment, 2006

Similar to UAEU and HCT, the President articulates the University's vision and sets the strategic directions, approving senior appointments, and evaluating the leadership's effectiveness in achieving its objectives. The President receives advice from a group of senior academic leaders known as the University Council, which consists of prominent UAE leaders. The Vice President is the university's Chief Executive Officer. The Vice President must be a "UAE citizen holding a doctorate degree and well known for his distinguished educational standing, takes the lead in managing the University's external relations. The Vice President works closely with the Minister of Higher Education and Scientific Research, the University Council, and external stakeholders to build support for the University and to foster the University's responsiveness to national needs. The Provost is Zayed University's chief academic officer with responsibility for all academic matters. Deans are responsible for the University's educational mission through the management of faculty and staff, the oversight of the quality of educational offerings, and the fostering of operational structures that support the University's mission. The Chief Administrative and Financial Officer, who reports to the Provost, oversees several administrative units including Human Resources, Computing Services, Financial Services, Contracts and Procurement, Campus Services, and Campus Physical Development. See Figure 15 for the University's organisation chart.

Figure 15: Zayed University Organizational Chart



Source: Zayed University Bylaws 2010

Table 27 shows the growing number of staff supporting the university mission between 2004 and 2009. The table also shows the number of staff per administrative department

Table 27: Staff numbers by administrative department

Zayed University
Staff Count by Department/Unit Fall 2004 - Fall 2009

Staff	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
Campus Administration Department	5	5	4	4	n/a	n/a
Campus Physical Development	13	15	14	14	15	18
Campus Services	14	n/a	n/a	n/a	n/a	n/a
College of Arts & Sciences	12	11	9	9	13	7
College of Business Sciences	7	10	10	7	14	3
College of Communication & Media Sciences	2	2	3	4	6	3
College of Education	2	4	5	5	6	5
College of Family Sciences	2	n/a	n/a	n/a	n/a	n/a
College of Information Technology	5	4	4	12	16	7
COIL/Interdisciplinary Programs / ABP	n/a	3	3	4	6	3
Community Affairs	8	10	9	8	11	n/a
Finance & Administration	n/a	55	54	53	53	66
DVP Finance	2	n/a	n/a	n/a	n/a	n/a
Financial Services	12	n/a	n/a	n/a	n/a	n/a
Human Resources Department	17	n/a	n/a	n/a	n/a	n/a
Computing Services Department	38	37	35	37	38	47
Institute for Community Engagement	n/a	n/a	n/a	n/a	n/a	14
Institute for Technological Innovation	6	9	5	n/a	n/a	n/a
Library and Learning Resource Center	19	23	20	33	29	18
Provost 's Office	10	17	19	12	17	50
Publications	4	5	5	5	4	6
Purchasing	8	n/a	n/a	n/a	n/a	n/a
Student Affairs Department	33	32	34	31	34	14
UAE Center for Bilingualism and Bilingual Education	n/a	n/a	n/a	n/a	n/a	1
University College	n/a	n/a	n/a	n/a	n/a	8
Vice President' s Office	5	5	7	7	10	20
Total Staff	224	247	240	245	272	290

Source: Zayed University Annual Report 2010

5.4.4 ZU Student Profile

For the first 10 years, ZU was strictly dedicated to the education of Emirati females. Lately, the university has opened its doors to a limited number of female students of all nationalities and to limited number of Emirati males. Gender separation continues to be the norm on all of these campuses. The university caters separately for national female and male students. Nearly all students in the female only campuses wear the abaya, or black cloak, and the shayla, or headscarf. A small number of students wear the niqab, or the face veil. Zayed University campuses are completely fenced structures with central courtyards. The reason for enclosed compounds is that female students have to check-in each morning with an electronic pass card and are not allowed to leave the campus until they exit in the afternoon to an awaiting car or bus.

There are guards at all the entrances to keep the girls in and unknown males out. The university is responsible for protecting the girls' reputation and virtue (Martin, 2005). The university has no dormitories; students go home to their families at the end of the day (Zoepe, 2006). It is important to note that the university operates in a social, economic, and cultural context that presents it with both challenges and opportunities not generally found in western-based accredited universities. Although there is some concern that many students eventually encounter family or other cultural barriers to entering employment within their field, there is also evidence that substantial numbers of ZU graduates are active in their newly acquired professions and that those who are not have had their lives enriched by the education they have received. The university also confronts an academic environment where an extraordinarily high proportion of the student body does not have native command of the language in which they are studying. This requires special efforts to increase student proficiency in English while maintaining academic momentum in the full range of their other course offerings (Zayed University Self Study, 2008). Tables 28 and 29 show Zayed University enrolments by major, specialization, program degree, and campus location.

Table 28: Zayed University Enrolments by College

Zayed University Student Enrollment By College - Spring 2010

	AUS – SOUTH CAMPUS	DXB – AL RUWAYYAH	AUH- NORTH CAMPUS	TOTAL
ACADEMIC BRIDGE PROGRAM	539	561	209	1309
Baccalaureate Program- General Education	678	860	112	1650
College of Art and Sciences	159	242		401
College of Business Sciences	260	270		530
College of Communication and Media	97	150		247
College of Education	79	128		207
College of Information Technology	87	103	10	200
Total Academic Bridge Program + Undergraduate Students at ZU	1899	2314	331	4544

Source: Zayed University Annual Report 2010

Table 29: Zayed University Enrolments by Program and Campus

[illegible]

Bachelor of Science in Business Sciences	178	2	233	276			260	280	267	270		
Bachelor of Science in Communication and Media Sciences	90	88	118	136			84	87	124	160		
Bachelor of Science in Education	88	79	74	74			74	70	72	108		
Bachelor of Science in Family Sciences												
Bachelor of Science in Information Systems	2		1	1				1	1	1		
Bachelor of Science in Information Technology	76	71	63	68			83	57	69	67		
Bachelor of Science in Computer Systems												
Bachelor of Science in Technology and Education	8	8	11	14			10	9	19	20		
Arts/Sci.and Comm/Media			1							1		
Arts/Sci.and Education			1	1					6	1		
Info Systems and Tech Mgmt	42	39	42	48			33	29	48	34		10
Total of Students by Campus	1808	1650	2166	1985	154	193	2078	1899	2486	2314	313	331
Total Students attending Zayed University	4128	3828					4877	4544				

Source: Zayed University Annual Report 2010

5.4.5 ZU Faculty Profile

To provide a US-style, English medium education requires the hiring and support of expatriate faculty and staff. The University is resourced with a student to faculty ratio of 11.7 to 1. The faculty is supported with an extensive benefits package that enables its members to relocate to the UAE comfortably. Faculty in ZU are mostly Westerners or have received a Western education. Faculty educated in Arab countries are hired as part of the Arabic and Islamic Studies program. Western or Western-educated faculty frequently have Western world views and come to teach with a Western set of values and ideals (Khelifa, 2010). In 2004, Zayed University's faculty were made up of 265 full-time faculty members teaching undergraduate and graduate programs. The faculty can be categorized in three different groups. One hundred and sixty-three faculty with appointments in one of the University's five colleges. Seventy-five percent of them are qualified with doctorates or terminal degrees appropriate to their disciplines. Eighty-five faculty members are appointed to the English Language Center, a unit charged to deliver the Academic Bridge Program (the pre-baccalaureate English-development curriculum). The standard qualification to teach in this unit is a Master's in Teaching English as a Second Language or its equivalent. The third group consists of 13 faculty members who have appointments in the University Seminar, a student support unit staffed with master's qualified instructors charged with student development, careers education, and advising in general education. The current faculties include persons from 35 different nationalities, with the largest numbers from the US, the UK and Canada. As of October 2006, Zayed University employed 280 faculty members, 39 academic administrators, and 224 staff members. As shown in Table 30, 132 faculty members, ten academic administrators, and 66 staff members were based in Abu Dhabi; and 148 faculty members, 29 academic administrators, and 158 staff members were based in Dubai. Some administrators share their time between the two campuses. The total of 543 employees included 68 Emirati employees (Zayed University Strategic Plan, 2008). Tables 30 and 31 display Zayed University faculty and staff numbers by department and campus location.

Table 30: Zayed University Faculty Count by Department (2004-2009)

Zayed University
Faculty Count by Department/ Unit Fall 2004- Fall 2009

Faculty	Fall 2004	Fall 2005	Fall 2006	Fall 2007	Fall 2008	Fall 2009
College of Arts & Sciences	187	110	105	101	98	75
College of Business Sciences	18	26	27	30	29	39
College of Communication & Media Sciences	14	16	16	15	15	17
College of Education	16	19	19	19	19	25
College of Information Technology	17	16	16	16	19	20
COIL/Interdisciplinary Programs / ABP	n/a	109	104	102	135	122
Total Faculty	237	296	287	283	315	298

Source: Zayed University Annual Report 2010

Table 31: Zayed University Faculty and Staff Count by Campus

Employees as of October 2006

Type of Employees	Total	Abu Dhabi	Dubai
Faculty	280	132	148
Academic Administrators	39	10	29
Staff	224	66	158
Total	543	208	335

Source: Zayed University Annual Report 2010

Faculty contracts are usually for three years with the chance for renewals. During the last three years, an average of 90 percent of faculty whose contracts had expired requested renewal. Of those faculty members who applied for renewal, 87 percent were offered contracts. The university assumes financial responsibility not only for normal benefits but also for housing, children's education, and annual round-trip travel to home countries for eligible employees and their dependents. The impact of this benefits package is that the total compensation cost for expatriate faculty and staff ranges from 150 to 190 percent of salary. To achieve the objectives of small class size and personal attention to students, the University has maintained a relatively low student-to-faculty ratio.

Teaching is clearly defined in University policy as the primary responsibility of all faculty. In addition to establishing obligations for teaching, scholarly and creative activity, and service, the policy establishes thresholds in each of these areas for appointment and promotion to the levels of assistant, associate, and full professor. In general, faculty who has been awarded academic rank at an accredited university that uses the same rank structure as Zayed University will be appointed at the same rank. Faculty appointed in a college at the rank of assistant, associate, or full professor must have completed a doctorate or a disciplinary terminal degree or must demonstrate significant equivalent professional experience. The University also appoints master's qualified faculty to the position of instructor because of institutional need for their specific disciplinary expertise. Assistant professors are expected to have had at least three years of successful teaching and show promise of being able to contribute to the University's mission through scholarship and service before they can move to an associate professor rank. Associate professors may apply for a full professor rank after five years. They "must show evidence of progressive professional development in the areas of instruction and instructionally related activities, scholarly or creative activities, and professional service." (Policy HR - FAC-01)

Table 32: Zayed University Faculty and Staff Qualifications

College Faculty Qualification and Rank (2006- 2007)

College	Degree	Instructor	Rank			Total
			Assistant Professor	Associate Professor	Professor	
CAS	M.A	10	0	0	0	10
	M.Arch	0	1	0	0	1
	M.E.D	0	1	0	0	1
	M.Ed	1	0	0	0	1
	M.F.A	1	12	0	0	13
	M.Phil	1	0	0	0	1
	M.Sc.	8	0	0	0	8
	Ed.D	0	0	1	0	1
CBS	PhD	6	25	21	5	57
	Total	27	39	22	5	93
	M.A	3	0	1	0	4
	M.B.A	4	1	0	0	5
	M.Ed	1	0	0	0	1
	PhD	0	8	4	3	15
	Total	8	9	5	3	25
	Total	8	9	5	3	25
CCMS	M.A	0	0	1	0	1
	M.Phil	0	1	0	0	1
	M.Sc	0	0	1	0	1
	P.hD	0	3	7	1	11
CED	Total	0	4	9	1	14
	Ed.D	0	1	2	0	3
	Ph.D	0	8	3	2	13
	Total	0	9	5	2	16
CIT	M.B.A	0	1	0	0	1
	D.Phil	0	1	0	0	1
	Ph.D	0	9	3	1	13
	Total	0	11	3	1	15
College Total		35	72	44	12	163

Source: Zayed University Self-Study 2008

5.4.6 ZU Academic and Curricula Profile

In spring 2000, a program development task group comprised of faculty and staff from ZU was formed to design the Academic Program Model. The task group was asked to propose learning outcomes supported by a curriculum that reflects the UAE's need for graduates; plan a curriculum that integrates liberal and professional studies; encourage the use of pedagogy that engages students in interactive, collaborative, and applied learning experiences; and, encourage the use of technology to enhance teaching and learning. The ZU community chose outcomes-based learning as the organizing concept for the design of the program model. Learning becomes more intentional when students understand what they are expected to know and do (Zayed University Academic Model, 2003). Zayed University is the only public university in the region with American accreditation. Other features that distinguish the University include the exclusive recruitment of Western or Western-educated faculty. Further, the instruction is delivered strictly in English with the exception of a few courses in Arabic and Islamic studies.

In addition to the University-wide Zayed University Learning Outcomes (ZULOs), each of the majors has established Major Learning Outcomes (MALOs) that are mapped across the courses in the major. The baccalaureate program in Zayed University is framed by six sets of learning outcomes. These outcomes are accompanied by detailed matrices used to evaluate student achievement. The matrices are: language, information technology, critical thinking and quantitative reasoning, information literacy, global awareness, and leadership (Zayed University Self Study, 2008). The Academic Program Model is supported through a complete educational program including:

- an Academic Bridge Program that ensures student proficiency in English;
- a general education core curriculum that provides a broad interdisciplinary foundation for major study;
- in-depth studies offered by five colleges where more than half of the courses for each program are in the major at the 300 or 400 points levels (Zayed University Self Study, 2008). Table 33 displays the different degrees and specialties offered by each college in Zayed University.

Table 33: Zayed University Undergraduate and Graduate Degrees and Specialties Offered by Each College

College of Arts and Sciences	
Bachelor of Arts (B.A.) in Art and Design	Specialization in Graphic Design
	Specialization in Interior Design
	Specialization in Animation
	Specialization in Visual Art
Bachelor of Arts (B.A.) in International Studies	Specialization in Culture and Society
	Specialization in International Affairs
Bachelor of Science (B.S.) in Health Sciences	Specialization in Environmental Health
	Specialization in Health Education and Health Promotion
	Specialization in Nutrition
Bachelor of Arts (B.A.) in Emirati Studies	joint with College of Communication and Media Sciences (Abu Dhabi only)
Bachelor of Science (B.S.) in Multimedia Design	joint with College of Information Technology and College of Communication and Media Sciences
College of Business Sciences	
Bachelor of Science (B.S.) in Business Sciences	Specialization in Accounting
	Specialization in Finance
	Specialization in Human Resource Management
	Specialization in Marketing
Bachelor of Science (B.S.) in Information Systems and Technology Management	joint with College of Information Technology
College of Communication and Media Sciences	
Bachelor of Science (B.S.) in Communication and Media Sciences	Specialization in Integrated Strategic Communications
	Specialization in Tourism and Cultural Communications
	Specialization in Visual Communications
	Specialization in Converged Media
Bachelor of Arts (B.A.) in Emirati Studies	joint with College of Arts and Sciences (Abu Dhabi only)
Bachelor of Science (B.S.) in Multimedia Design	joint with College of Information Technology and College of Arts and Sciences

College of Education	
Bachelor of Science (B.S.Ed.) in Education	Specialization in Early Childhood / Kindergarten / Primary Education
	Specialization in Upper Primary / Preparatory Education
	Specialization in School Social Work
	Specialization in Children, Youth, and Family Services
Bachelor of Science (B.S.) in Technology and Education	joint with College of Information Technology
College of Information Technology	
Bachelor of Science (B.S.) in Information Technology	Specialization in Security and Network Technologies
	Specialization in Web Technologies
Bachelor of Science (B.S.) in Information Systems and Technology Management	joint with College of Business Sciences
Bachelor of Science (B.S.) in Technology and Education	joint with College of Education
Bachelor of Science (B.S.) in Multimedia Design	joint with College of Communication and Media Sciences and College of Arts and Sciences

Graduate Degree Programs

College	Graduate Degree Program	Graduate Certificate Program
College of Arts and Sciences	<ol style="list-style-type: none"> Executive Masters in Health Care Administration (EMHCA) Executive Masters in Public Administration (EMPA) Master of Arts (M.A.) in Diplomacy and International Affairs 	<ul style="list-style-type: none"> Graduate Certificate in Health Care Administration Graduate Certificate in Diplomacy and International Affairs Graduate Certificate in Museum Studies
College of Business Sciences	<ol style="list-style-type: none"> Executive Masters in Business Administration (EMBA) Master of Science (M.S.) in Finance (Closed Cohort) Master of Science (M.S.) in International Business (MSIB) 	<ul style="list-style-type: none"> Graduate Certificate in Business Administration
College of Communication and Media Sciences	<ol style="list-style-type: none"> Master of Arts (M.A.) in Communications <ul style="list-style-type: none"> Specialization in Tourism and Cultural Communication Specialization in Strategic Public Relations 	<ul style="list-style-type: none"> Graduate Certificate in Tourism and Cultural Communication Graduate Certificate in Public Relations

College of Education	<ol style="list-style-type: none"> 1. Master of Education (M.Ed.) <ul style="list-style-type: none"> • Specialization in Educational Leadership • Specialization in School Administration • Specialization in Special Education 2. Master of Science (M.S.) in Teaching and Learning 	<ul style="list-style-type: none"> • Graduate Certificate in Advanced Professional Study in School Leadership for Principals • Graduate Certificate in Advanced Professional Study in Teaching and Learning (Primary)
College of Information Technology	<ol style="list-style-type: none"> 1. Master of Science (M.S.) in Information Technology <ul style="list-style-type: none"> • Specialization in Cyber Security 	<ul style="list-style-type: none"> • Graduate Certificate in High Technology Crime Investigation • Graduate Certificate in Information Security • Graduate Certificate in E-Archive and Information Management (joint with Library and Learning Resources)
Institute for Islamic World Studies	<ol style="list-style-type: none"> 1. Master of Arts (M.A.) in Judicial Studies (Closed Cohort) 2. Master of Arts (M.A.) in Contemporary Islamic Studies* 3. Master of Arts (M.A.) in Endowment Studies* 4. Master of Arts (M.A.) in Economics and Wealth Management* 5. Master of Arts (M.A.) in Islamic World Studies* 	N/A

.Source: Your Guide to Higher Education. Napo National Admissions and Placement Office. Available at :
<https://www.mohesr.gov.ae/en/Documents/napo1.pdf>

Policy ACA-ADM-11 provides information about the grading system at Zayed University.

Letter Grades and Quality Points

The policy states that courses shall be graded using letter grades. Each letter grade has corresponding numerical quality points assigned to calculate the overall grade-point average (GPA) of the student.

Table 34: Zayed University Grading System

Letter Grade	Quality Points	Description
A	4.0	The highest academic grade possible.
A-	3.7	
B+	3.3	
B	3.0	<i>Achievement considerably above acceptable standards..</i>
B-	2.7	
C+	2.3	
C	2.0	Indicates an appropriate level of competency in the course's basic learning outcomes.
C-	1.7	
D+	1.3	
D	1.0	Denotes limited understanding of the subject matter, meeting only the minimum requirement for passing the course.
F	0.0	Indicates inadequate or unsatisfactory attainment, serious deficiency in understanding of course material, or failure to complete the requirements of the course.

Source: Zayed University Annual Report Year??

In order to be eligible for direct entry to the degree program without spending time in the foundation program, students should have a score on the CEPA-English exam in addition to a minimum average on the GSC exam or its equivalent and meet the IELTS or TOEFL requirements as defined by the institution. Students wishing to enter Zayed University directly from high school must:

- Submit a completed application form for admission to the National Admissions and Placement Office (NAPO).
- Take the Common Educational Proficiency Assessment (CEPA).

All national applicants must achieve a score of at least 150 on the English section of the Common Educational Proficiency Assessment (CEPA). CEPA English scores are used by Zayed University to place admitted students in the appropriate instructional level in the Academic Bridge Program or the baccalaureate program. All students are expected to take the CEPA Math examination. There is, however, no minimum score required for admission.

5.5 Conclusion

In this chapter, we presented the three federal higher education institutions in the UAE. The establishment of each of the three institutions reflects a different era in the development of the UAE federal higher education system. The UAE higher education model has shifted from an Egyptian higher education model in the 1970s to an American-like higher education model in the 1990s. The chapter presented the key factors behind this shift and the historic background associated with it. Although the three institutions that represent UAE federal higher education are governed by the Ministry of Higher Education and almost fully funded by the UAE government, they vary in terms of their vision, mission, goals, campus locations, target students and academic profile. The Modified - American Higher Education Model pilot with Zayed University has proven successful. Zayed University is the first public university to receive accreditation by the US Middle States Association of Colleges and Universities in the region. Now, the Ministry of Higher Education expects the other two universities to make a strategic shift to adopt the same model. The new UAE higher education model uses American-like curricula, but does not use a similar governing structure and other attributes to that of North America. The model is tailored to serve the local needs of the UAE including Emiritization and promoting nationalism.

The next sections draw on the results from the fieldwork (interviews, questionnaire, documentary review and participant observation) to present an analysis of each of the examined higher education institutions in the UAE in order to draw out some of the characteristics of the federal higher education model of the UAE and how it differs from that of the US.

Chapter Six – Field Work Results – Questionnaire, Documentation, and Observation

6.1 Introduction

The population of this study was potentially all the staff, students, faculty members, and senior managers of all three federal higher education institutions in the UAE. The sample for the study included 40 staff members, 40 faculty members, 100 students, and 20 senior managers, representing all three federal higher education institutions. The sample was based on systematic probability where at least one person was chosen from every key unit. The sample was identified based on what was practical and relevant to the study as well. The questionnaire process started by dispatching all 200 questionnaires to the sample; this was followed up by reminder telephone calls. The response rate achieved was 74% with 148 completed questionnaires returned. The data were coded and analyzed using descriptive statistical analysis such as mean, percentage, and frequency. This chapter presents summary data of all the questions in the questionnaire for all 148 respondents.

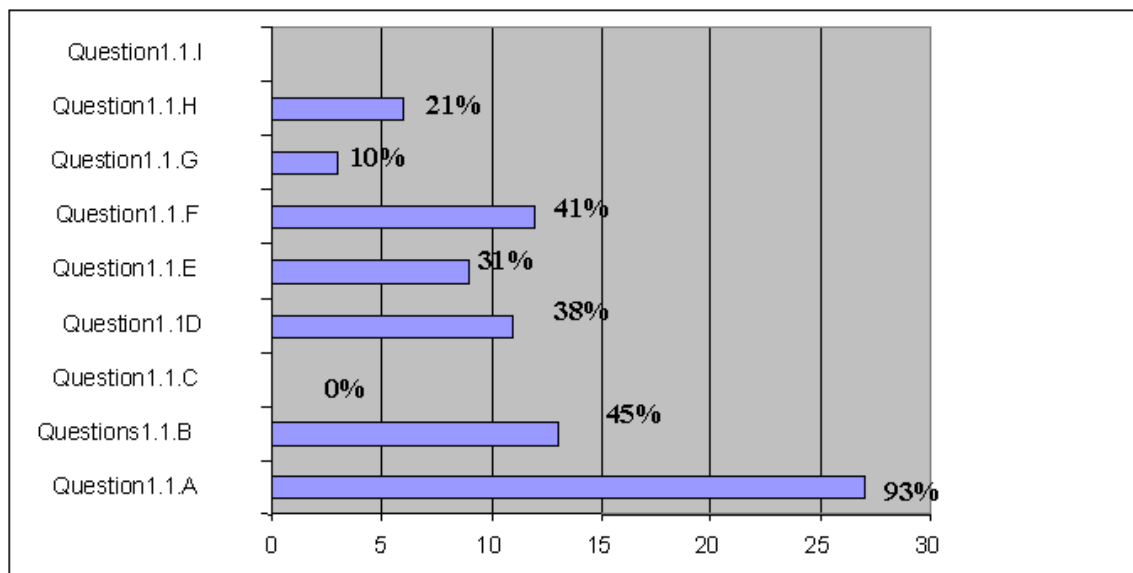
6.2 Questionnaire Results

Question 1 (Multiple Response) - What are the key business goals of your university?

- 1.A - Provide under graduate taught courses in different subject disciplines
- 1.B - Provide post graduate taught courses in different subject disciplines
- 1.C - Provide Doctoral Programs on a part-time and full-time basis
- 1.D - Provide CPD (Continuous Program Development) training and courses
- 1.E - Deliver (engage into) blended (e-Learning) modes of program delivery
- 1.F - Work closely with industry on enterprise, research and development projects
- 1.G - Conduct state of the art applied and fundamental research
- 1.H - Shape the research and education agenda of funding councils and government
- 1.I - Other, please specify:

Question1 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question1.A	138	93.1%	10	6.9%	148	100.0%
Questions1.B	66	44.8%	82	55.2%	148	100.0%
Question1.C	0	.0%	148	100.0%	148	100.0%
Question1.D	56	37.9%	92	62.1%	148	100.0%
Question1.E	46	31.0%	102	69.0%	148	100.0%
Question1.F	60	41.4%	88	58.6%	148	100.0%
Question1.G	14	10.3%	134	89.7%	148	100.0%
Question1.H	28	20.7%	120	79.3%	148	100.0%
Question1.I	0	.0%	148	100.0%	148	100.0%

Question1 Chart

Question 1, sought to identify the key business goals of the examined universities, and the level of awareness of the respondents of the universities' business goals. All three federal higher education institutions offer undergraduate and graduate level education. Identified by 93% of the respondents, offering undergraduate education appeared to be the prime business goal of these institutions. Although all of them offer graduate level education, and continuous program development, these were not identified by the majority of respondents as the main business goals of these universities. Almost 40% of the respondents identified working closely with industry on enterprise, research and development projects, and offering continuous program development as identified business goals of their universities; but 60% of the respondents did not identify these goals.

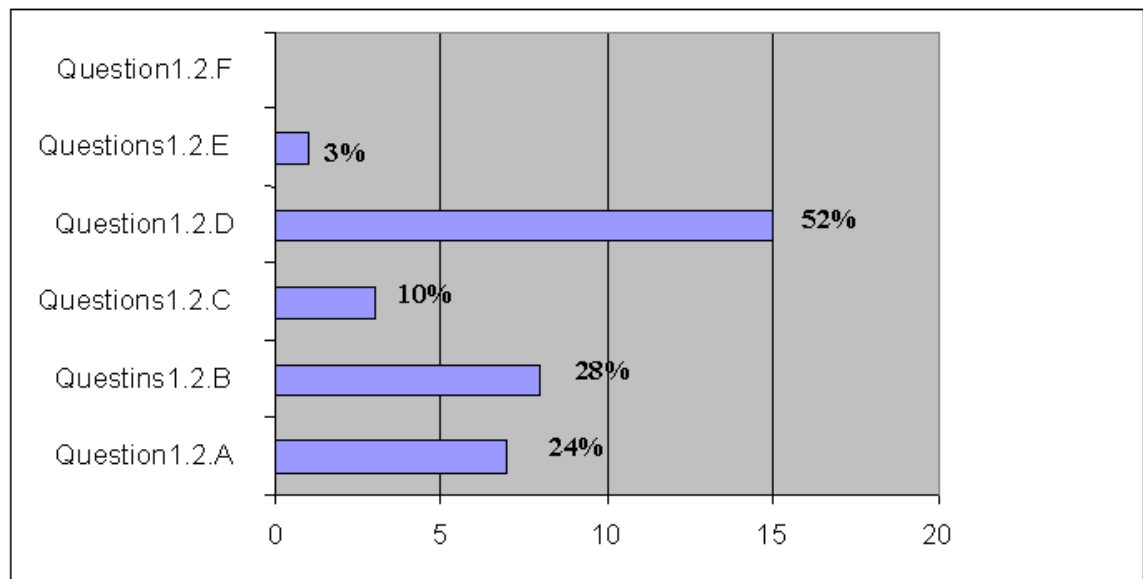
Question 2 (Multiple Response) - Does your university offer online courses and services?

- 2.A - Online Courses
 2.B - Online application and registration
 2.C - Online Tuition and other fee payment
 2.D - Internet, Intranet, Extranet services
 2.E - Other, please specify
 2.F - None

Question 2 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 2.A	36	24.1%	112	75.9%	148	100.0%
Question 2.B	42	27.6%	106	72.4%	148	100.0%
Question 2.C	15	10.3%	133	89.7%	148	100.0%
Question 2.D	77	51.7%	71	48.3%	148	100.0%
Question 2.E	6	3.4%	142	96.6%	148	100.0%
Question 2.F	0	0%	148	100.0%	148	100.0%

Question 2 Chart



Question 2 sought to identify whether the examined universities were restricted to a specific delivery mode (face-to-face or traditional), or allowed several delivery modes including on-line teaching. The question also sought to identify whether the examined institutions used Information Technology to allow students to register or pay for their tuition fees. While none of the examined universities offer multi-mode delivery programs, and while on-line classes have not been formally introduced,

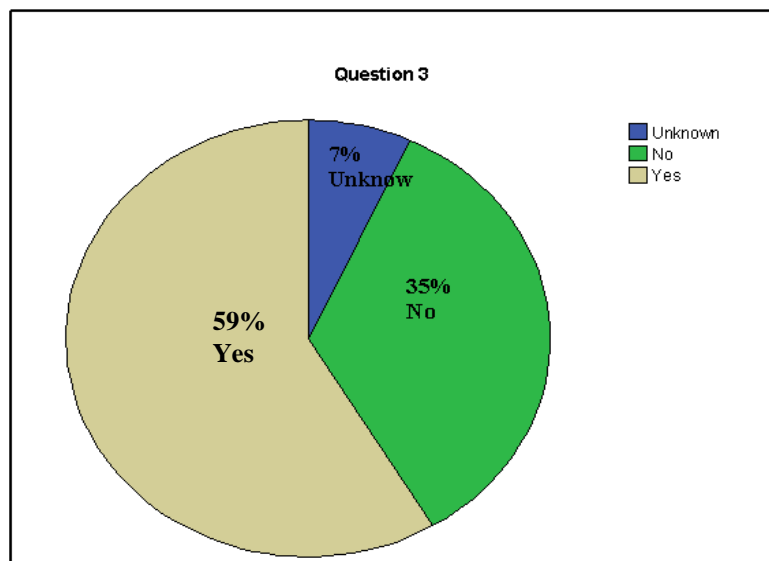
24% of the respondents mistakenly identified online courses as an electronic service offered by the university. In addition, while none of the examined universities offer on-line registration or other on-line services, 27% of the respondents mistakenly identified on-line application and registration as an electronic service offered by these institutions.

Question 3 - Has the vision and mission of your university been communicated to you?

Question 3 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	12	6.9	6.9	6.9
No	50	34.5	34.5	41.4
Yes	86	58.6	58.6	100.0
Total	148	100.0	100.0	

Question 3 Chart



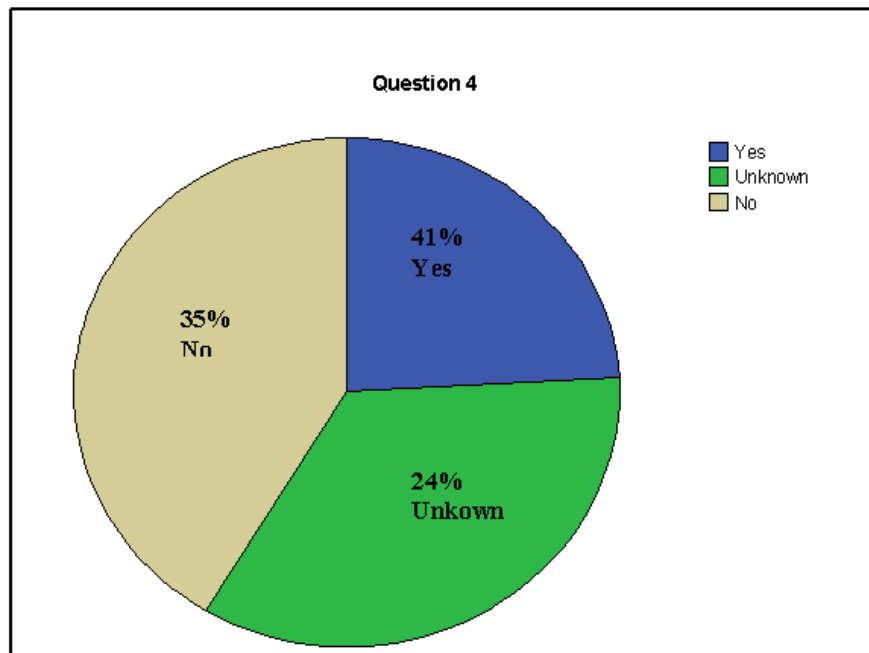
Question 3 sought to identify whether the university vision and mission had been communicated to the respondents. Fifty-nine percent (59%) of the respondents stated that the university vision and mission had been communicated to them, while 35% stated that the vision and mission had not been communicated. The remaining (7%) did not answer the question. Most respondents who answered "yes" referred to the university's vision and mission on the website; while some of those who answered "no" stated that availability and communication are two different things.

Question 4 – Do you believe the vision and mission of your university relates to the vision and mission of the federal higher education system in the UAE? Why?

Question 4 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	37	24.1	24.1	24.1
No	50	34.5	34.5	58.6
Yes	61	41.4	41.4	100.0
Total	148	100.0	100.0	

Question 4 Chart



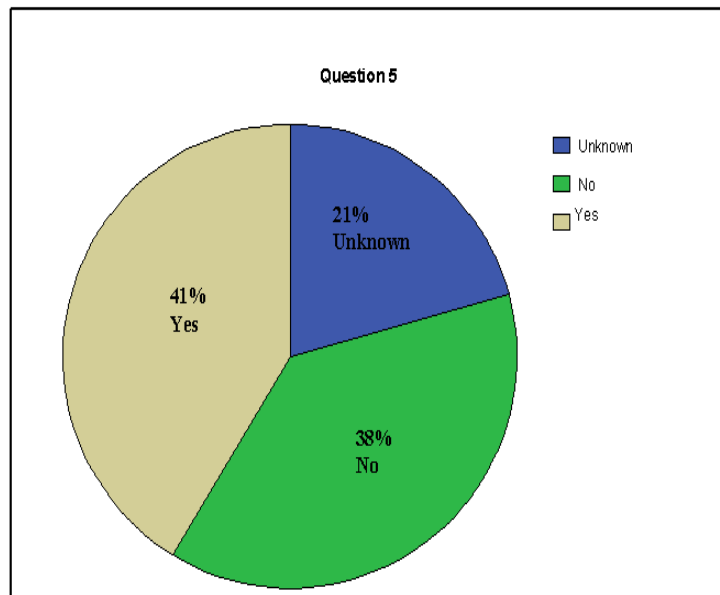
Question 4 was a follow-up to question 3. It sought to identify whether the respondents believed that the university vision and mission related to the greater vision and mission of federal higher education in the UAE. Forty-one percent (41%) of the respondents believed that the vision and mission of their university was part of the greater vision and mission of the UAE federal higher education system, while 35% did not support that theory. Nearly a quarter (24%) did not answer the question. Those who agreed referred to similarities among the examined institutions in terms of funding, governance, structure, and policies; those who opposed cited differences in curricula and foreign accreditation status, specifically in the case of ZU.

Question 5 - Are your university's policies subject to oversight or review by another organization such as the Ministry of Education?

Question 5 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	28	20.7	20.7	20.7
No	58	37.9	37.9	58.6
Yes	62	41.4	41.4	100.0
Total	148	100.0	100.0	

Question 5 Chart



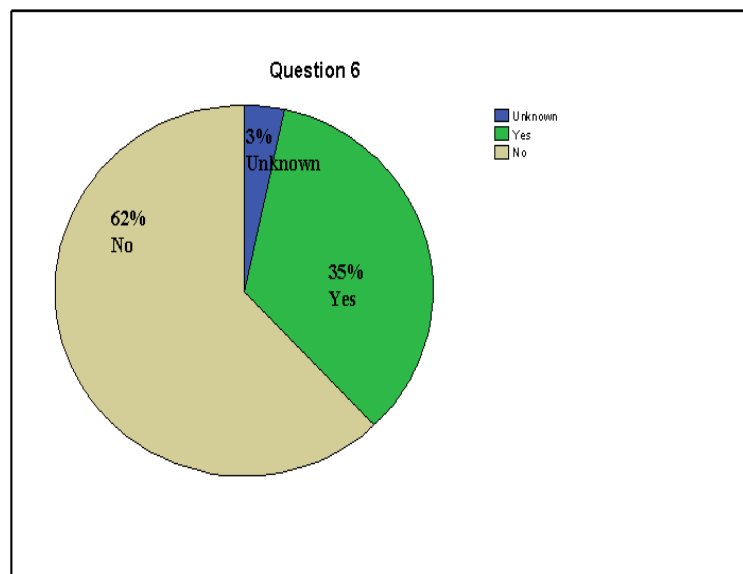
Question 5 sought to identify whether the examined institutions were subject to oversight by other institutions. Forty-one per cent (41%) of the respondents referred to the Ministry of Higher Education, the Ministry of Finance, and the federal Government of the UAE; 38 % of the respondents did not believe that the university was subject to any oversight by other institutions or agencies; while 21% did not know the answer.

Question 6 - Do you consider your university to be a “typical” Emirati university?

Question 6 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	4	3.4	3.4	3.4
Yes	52	34.5	34.5	37.9
No	92	62.1	62.1	100.0
Total	148	100.0	100.0	

Question 6 Chart



Question 6 sought to identify how the respondents viewed the culture of the examined institutions. Nearly two-thirds (62%) of the respondents did not view their university as a typical Emirati university; most of the respondents referred to the language of instruction, the curricula, and the faculty profile. Only 35% thought of their universities as Emirati. Most of them referred to the students' profile (the majority of students are nationals), the free tuition, and the separation of the two sexes in campuses. A tiny proportion (3%) could not decide whether the university was a typical Emirati or not.

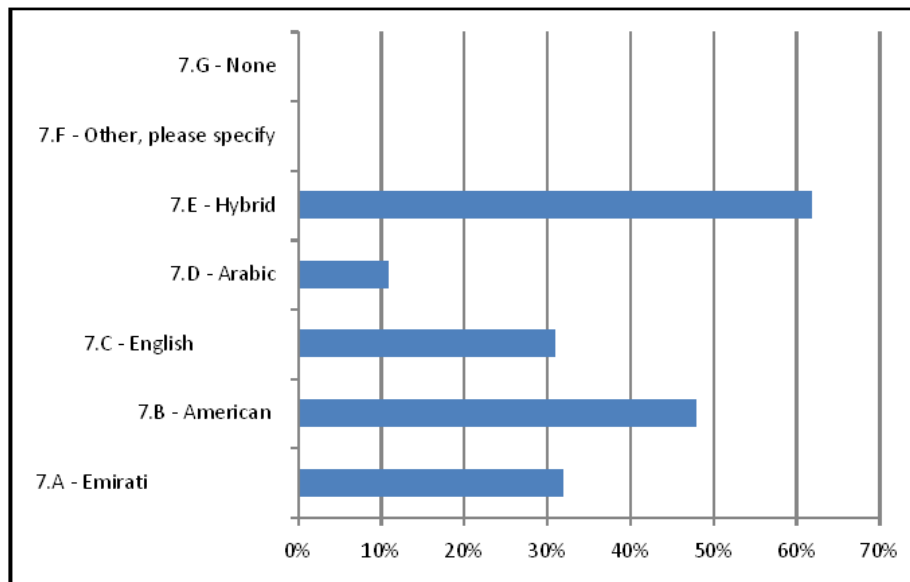
Question 7 - (Multiple Responses) How'd you describe the higher education model of your university?

7.A - Emirati
 7.B - American
 7.C - English
 7.D - Arabic
 7.E - Hybrid
 7.F - Other, please specify
 7.G - None

Question 7 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 7.A	16	32.2%	13	67.8%	148	100.0%
Question 7.B	14	48.3%	15	51.7%	148	100.0%
Question 7.C	20	31.0%	9	69.0%	148	100.0%
Question 7.D	12	11.4%	17	88.6%	148	100.0%
Question 7.E	18	62.1%	11	37.9%	148	100.0%
Question 7.F	0	.0%	148	100.0%	148	100.0%
Question 7.G	0	.0%	148	100.0%	148	100.0%

Question 7 Chart



Question 7 sought to identify the respondents' perception of the higher education model of their university. The great majority of respondents identified the higher education model of the examined institutions as a hybrid model that utilizes to a great extent the North American model of higher education.

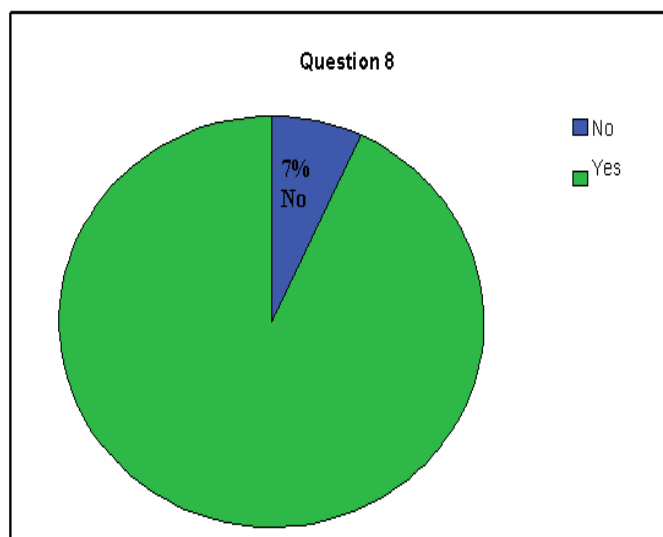
A hybrid model preserves the conservative culture, tradition, and religious beliefs of the UAE. Most of the respondents referred to the North American curricula, English as the instruction language, and the fact that the great majority of faculty are either from North America, or have been educated in North America. Other respondents referred to the accreditation status given by SACS to Zayed University. Nearly half (48%) of the respondents viewed the higher education model as American, mainly because of the curricula, admission requirements, and the instructional language; they thought that other factors such as the culture of the UAE is irrelevant since it has no effect on the contents of the curricula. Around a third (31%) viewed the higher education model as English based on the sole base of the language of instruction. A similar number (32%) viewed the higher education model as Emirati. While most of these respondents recognized that the instruction language and the curricula are both imported, they emphasized that the higher education model as a whole is unique to the UAE, and could not be used as it is in other countries such as the US or the UK.

Question 8 - Do you think the higher education model used by your university is similar to the models used by other federal higher education institutions in the UAE?

Question 8 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
No	11	6.9	6.9	6.9
Yes	137	93.1	93.1	100.0
Total	148	100.0	100.0	

Question 8 Chart



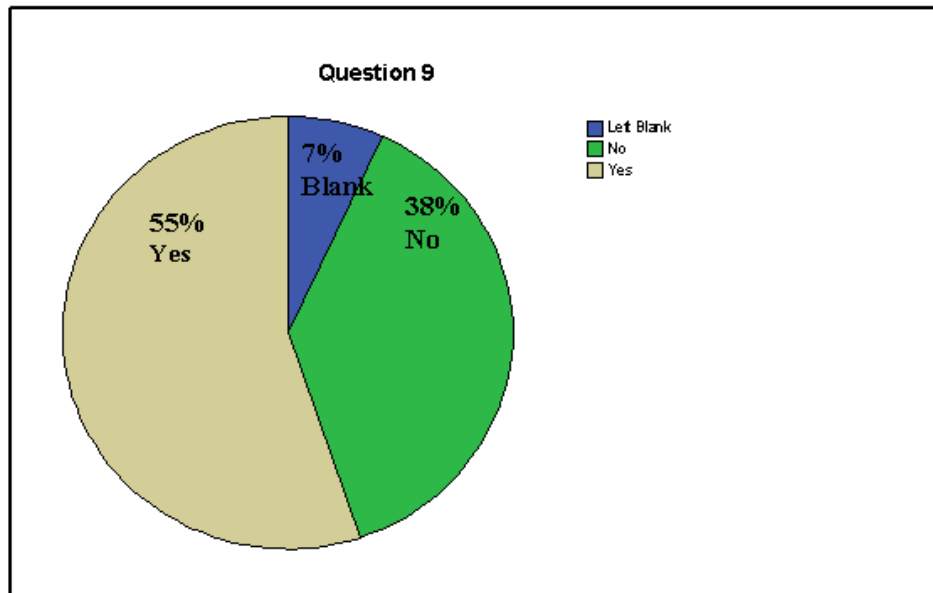
Question 8 sought to identify whether the higher education model used by the examined universities are similar, and in conformance with the vision of the federal higher education model of the UAE. The majority (93%) of the respondents believed that this was the case. They referred to similarities in curricula, instruction language, governance, structure, faculty profile, and students' profile. Only 7% of the respondents reported the three examined institutions had a different higher education model in place.

Question 9 - Do you think the higher education model of university is successful? Why?

Question 9 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Left Blank	12	6.9	6.9	6.9
No	55	37.9	37.9	44.8
Yes	81	55.2	55.2	100.0
Total	148	100.0	100.0	

Question 9 Chart



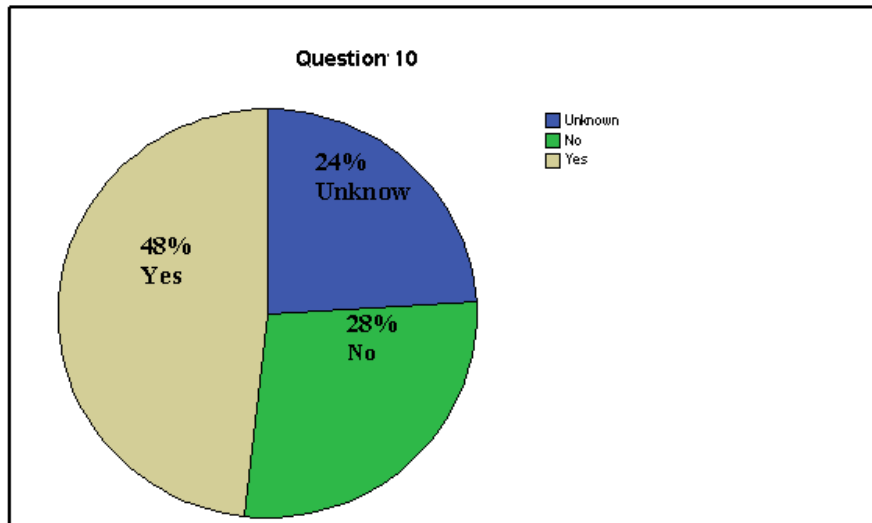
Question 9 asked if the higher education model is viewed as successful. Just over a half (55%) of the respondents viewed the higher education model employed as successful. Most of these respondents referred to the university's accreditation status in and out of the UAE. They also referred to the students' ability to receive employment, relatively within a short time after graduation. Nearly two-fifths (38%) of the respondents did not think the higher education model was successful. They reported a disconnect between the higher education model and the UAE K-12 education system. They also referred to the high enrollment numbers in private higher education in the UAE. Seven percent of the respondents did not answer the question.

Question 10 - Do you think the higher education model of university is appropriate for the environment of the UAE? Why?

Question 10 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	34	24.1	24.1	24.1
No	42	27.6	27.6	51.7
Yes	72	48.3	48.3	100.0
Total	148	100.0	100.0	

Question 10 Chart



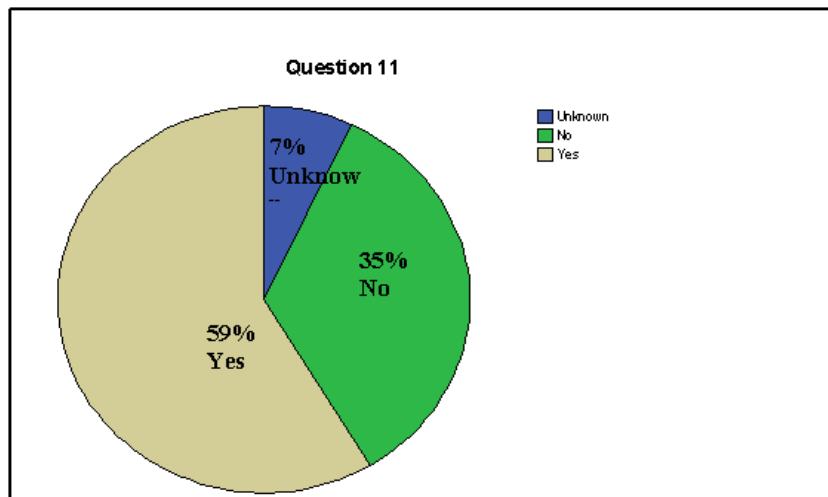
Question 10 examined the appropriateness of the higher education model to the environment of the UAE. Nearly half (48%) of the respondents thought that it was appropriate, and they were not offended by the curricula and the teaching materials; and just over a quarter (28%) did not think the higher education model of their university was appropriate for the UAE; A a few of the respondents stated that the current model does not enhance nationalism in the UAE, and introduces American ideas and beliefs that are contradictory to the culture and beliefs of the people of the UAE. Nearly a quarter (24%) of the respondents did not know the answer.

Question 11 - Do you think the university's higher education model is similar to that of higher education institutions in the US or the UK? Why?

Question 11 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	12	6.9	6.9	6.9
No	50	34.5	34.5	41.4
Yes	86	58.6	58.6	100.0
Total	148	100.0	100.0	

Question 11 Chart



Question 11 sought to identify whether the respondents believed that the examined universities higher education model was similar to the higher education models used in the West such as the ones in the US and the UK. Fifty-nine percent (59%) of the respondents believed this to be the case. Many of them supported their answers with similarities between the compared models in terms of instruction language, curricula, faculty profile, learning methods, systems used, and accreditation status. Just over a third (35%) of the respondents did not agree. They cited fenced and separate campuses, free tuition, and heavy government control as evidence. Seven percent of the respondents did not respond to this question.

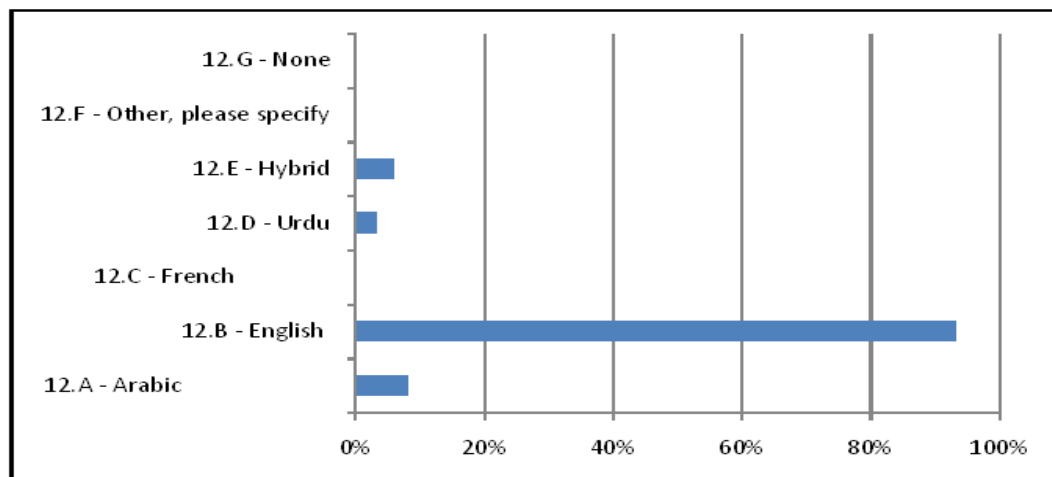
Question12 - (Multiple Responses)What is the instruction language in your university?

12.A - Arabic
 12.B - English
 12.C - French
 12.D - Urdu
 12.E - Hybrid
 12.F - Other, please specify
 12.G - None

Question 12 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 12.A	12	8.2%	136	91.8%	148	100.0%
Question 12.B	138	93.3%	10	6.7%	148	100.0%
Question12.C	0	0%	148	100.0%	148	100.0%
Question12.D	5	3.4%	143	96.6%	148	100.0%
Question12.E	9	6.1%	139	93.9%	148	100.0%
Question12.F	0	.0%	148	100.0%	148	100.0%
Question12.G	0	.0%	148	100.0%	148	100.0%

Question 12 Chart



Question 12 examined the instruction language used by the examined universities. The great majority of the respondents (93%) indicated that the instruction language being used is English. Only 8% of the respondents referred to the use of the Arabic language in some of the courses and programs including Arabic and Islamic studies.

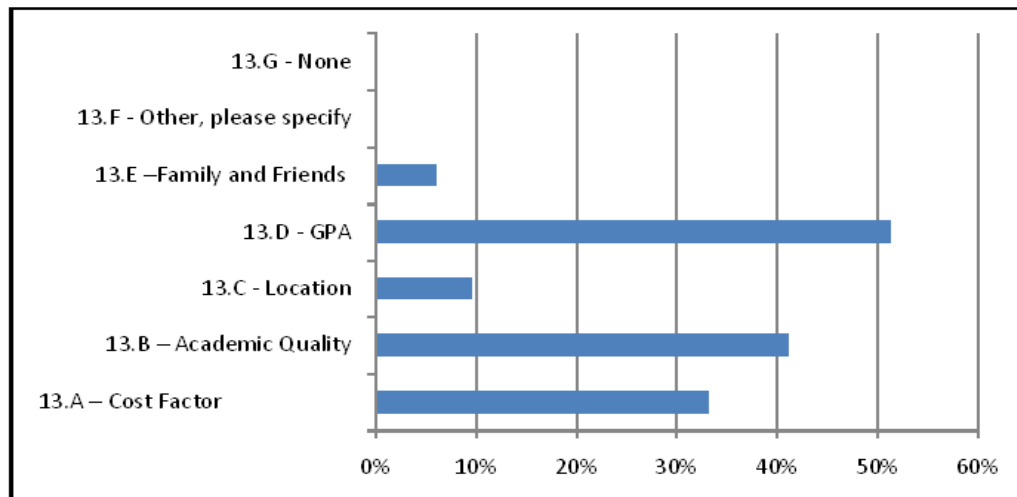
Question13 - (Multiple Responses) Why did you join this university? (Students Only)

13.A – Cost Factor
 13.B – Academic Quality
 13.C - Location
 13.D - GPA
 13.E –Family and Friends
 13.F - Other, please specify
 13.G - None

Question 13 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 13.A	28	33.2%	57	66.8%	85	100.0%
Question 13.B	35	41.3%	50	58.7%	85	100.0%
Question13. C	8	9.6%	77	91.4%	85	100.0%
Question13. D	43	51.4%	42	49.6%	85	100.0%
Question13. E	5	6.1%	80	93.9%	85	100.0%
Question13. F	0	.0%	85	100.0%	85	100.0%
Question13. G	0	.0%	85	100.0%	85	100.0%

Question 13 Chart



Question 13 aimed to gauge the key factors that led students to join the examined universities. Just over half of the respondents (54%) identified GPA as the most important factor. The ministry of higher education determines the acceptable GPAs for each federal higher education institution. Academic quality ranked second with 41% of the respondents; followed by cost factors (33%). Location and the influence of family and friends seemed not to play a great role in the decision making process of these students.

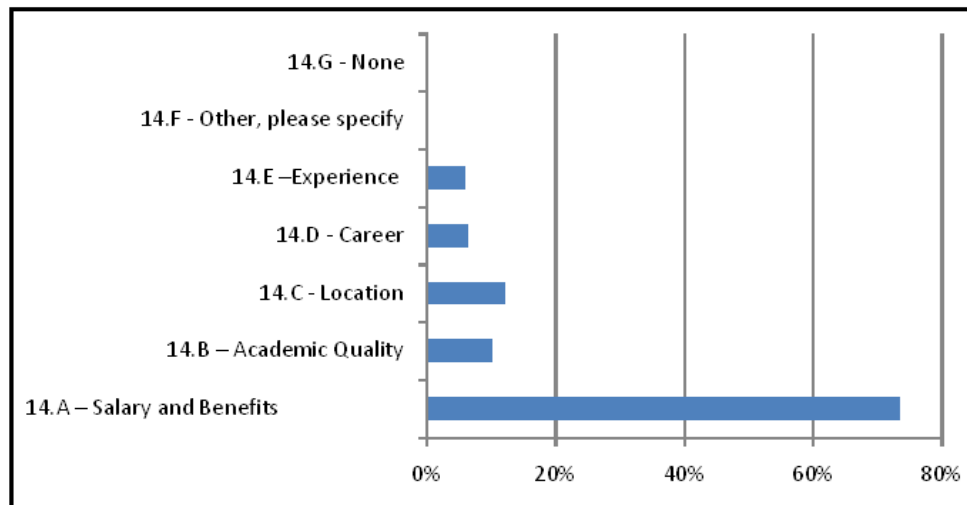
Question14 - (Multiple Responses) Why did you join this university? (Faculty Only)

- 14.A – Salary and Benefits
- 14.B – Academic Quality
- 14.C - Location
- 14.D - Career
- 14.E –Experience
- 14.F - Other, please specify
- 14.G - None

Question 14 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 14.A	27	73.7%	9	26.3%	36	100.0%
Question 14.B	3	10.3%	33	89.7%	36	100.0%
Question14. C	4	12.2%	32	87.8%	36	100.0%
Question14. D	2	6.4%	34	93.6%	36	100.0%
Question14. E	2	6.1%	34	93.9%	36	100.0%
Question14. F	0	.0%	36	100.0%	36	100.0%
Question14. G	0	.0%	36	100.0%	36	100.0%

Question 14 Chart



Question 14 tried to gauge the key factors that led faculty members to join the examined universities. Most (74%) of the faculty members attributed their employment in the examined higher education institution to the salary and benefits associated with the position. None of the remaining factors scored more than 12%, including academic quality; which is understood given the young age of higher education in the UAE.

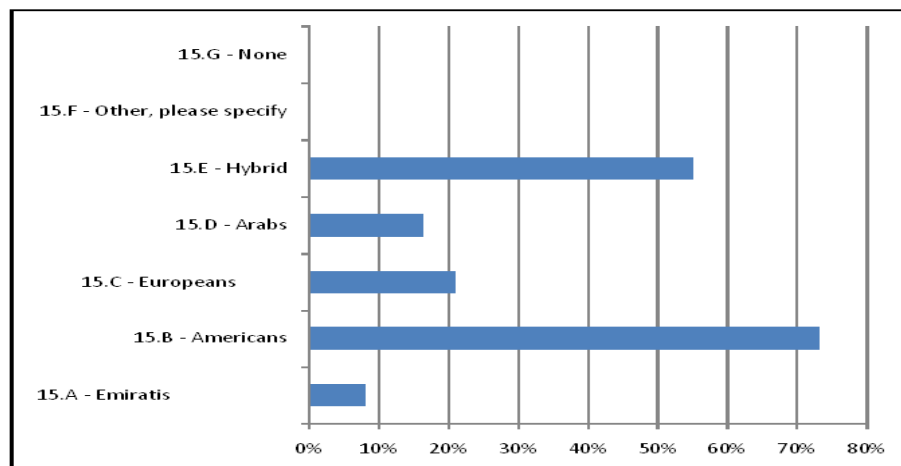
Question15 - (Multiple Responses) How would you describe the faculty profile in your university?

15.A - Emiratis
 15.B - Americans
 15.C - Europeans
 15.D - Arabs
 15.E - Hybrid
 15.F - Other, please specify
 15.G - None

Question 15 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 15.A	12	8.2%	136	91.8%	148	100.0%
Question 15.B	108	73.3%	40	26.7%	148	100.0%
Question15C	32	21.0%	116	89.0%	148	100.0%
Question15.D	24	16.4%	124	83.6%	148	100.0%
Question15.E	82	55.1%	66	44.9%	148	100.0%
Question15.F	0	.0%	148	100.0%	148	100.0%
Question15.G	0	.0%	148	100.0%	148	100.0%

Question 15 Chart



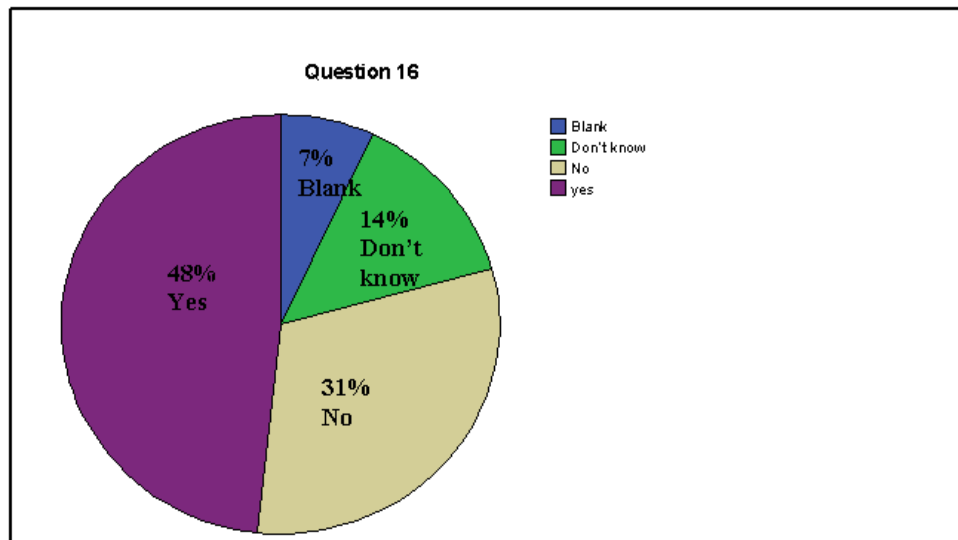
Question 15 sought to identify the faculty profile within the examined higher education institutions. Most of the respondents (74%) viewed the faculty profile as mainly American. Over a half (55%) of the respondents believed that the faculty profile was mixed between North Americans and other nationals who have been educated in North America. Arabs, European, and Emiratis came last, and were strictly used to teach a few subjects that required specific knowledge or language skills.

Question16 - Do you think the current faculty profile of your university defines its higher education model? Why?

Question 16 Processing Summary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Blank	10	6.9	6.9	6.9
	Don't know	19	13.8	13.8	20.7
	No	46	31.0	31.0	51.7
	Yes	72	48.3	48.3	100.0
	Total	148	100.0	100.0	

Question 16 Chart



Question 16 attempted to create a link between the faculty profile and the higher education model of that university. Nearly half of the respondents (48%) believed there was a link between both. Some of their answers included “we don’t have any faculty members from China”. Around a third (31%) of the respondents did not think there was a direct link since faculty members were hired based on the MOHE directive. Twenty-one per cent of the respondents did not respond.

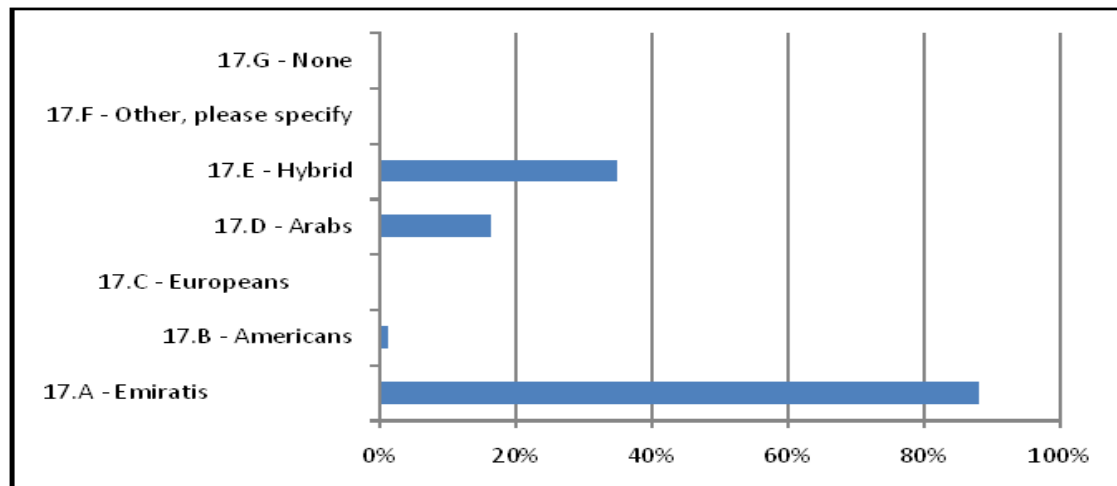
Question17 - (Multiple Responses) How would you describe the students' profile in your university?

17.A - Emiratis
 17.B - Americans
 17.C - Europeans
 17.D - Arabs
 17.E - Hybrid
 17.F - Other, please specify
 17.G - None

Question 17 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 17.A	130	88.2%	18	11.8%	148	100.0%
Question 17.B	2	1.3%	146	98.7%	148	100.0%
Question17C	0	0.0%	148	100.0%	148	100.0%
Question17.D	24	16.4%	124	83.6%	148	100.0%
Question17.E	52	35.1%	96	64.9%	148	100.0%
Question17.F	0	.0%	148	100.0%	148	100.0%
Question17.G	0	.0%	148	100.0%	148	100.0%

Question 17 Chart



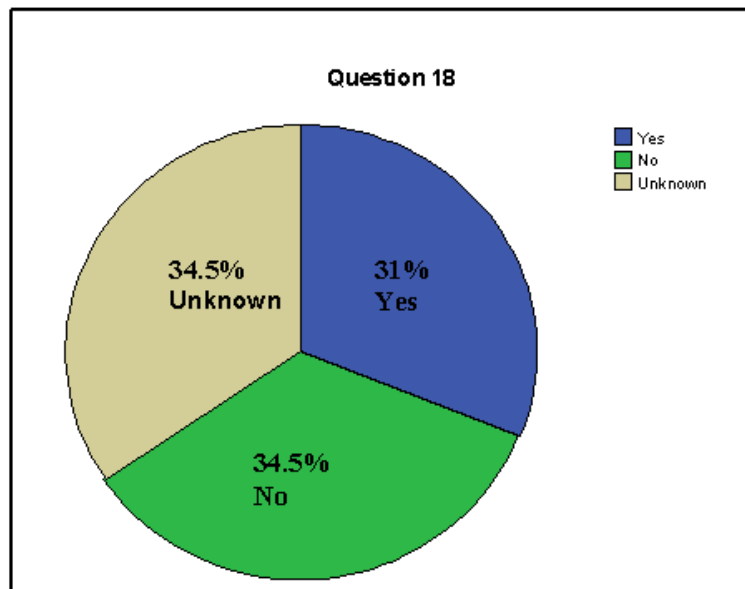
Question 17 looked into the students' profile. Until recently all federal higher education institutions admitted only Emirati nationals with few exceptions. This was changed in the last two years to allow limited number of international students. So, most of the respondents (89%) viewed the students' profile as mainly Emirati nationals; 35% of the respondents identified the students' profile as hybrid or mixed.

Question18 - Do you think the current students' profile of your university defines its higher education model? Why?

Question 18 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	46	31.0	31.0	31.0
No	51	34.5	34.5	65.5
Unknown	51	34.5	34.5	100.0
Total	148	100.0	100.0	

Question 18 Chart



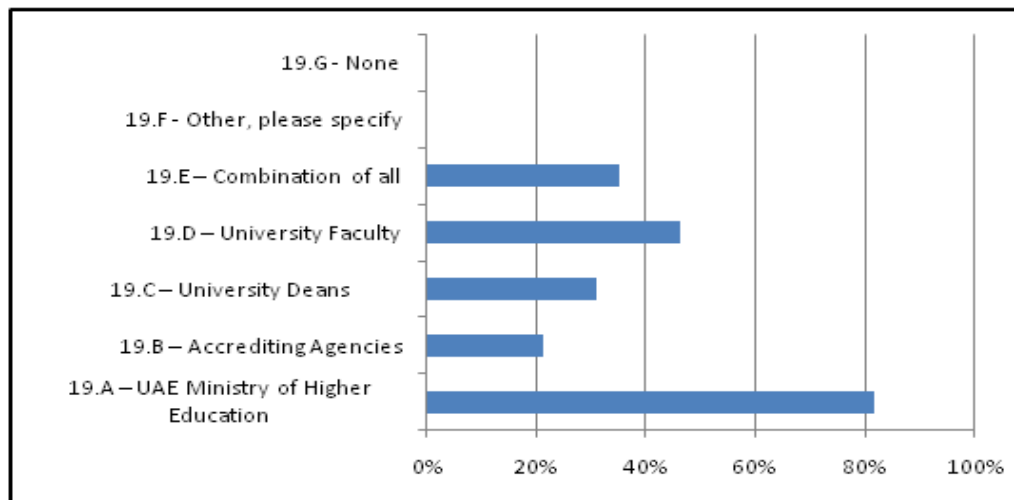
Question 18 attempted to link the profile of students to the higher education model of the university. Around a third (31%) of the respondents reported that the students' profile defined the higher education model used. Some of their comments included "curricula are designed for students, not the opposite". Similarly, 35% reported there was no link between the students profile and the higher education model used. Some of their answers included "students have no effect on curricula or other university policies. A third (34%) of the respondents did not answer the question..

Question19 - (Multiple Responses) Who decides the university's curricula?

19.A – UAE Ministry of Higher Education
 19.B – Accrediting Agencies
 19.C – University Deans
 19.D – University Faculty
 19.E – Combination of all
 19.F - Other, please specify
 19.G - None

Question 19 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 19.A	121	81.8%	27	18.2%	148	100.0%
Question 19.B	23	21.3%	125	78.7%	148	100.0%
Question19C	42	31.0%	106	69.0%	148	100.0%
Question19.D	24	46.4%	124	53.6%	148	100.0%
Question19.E	52	35.1%	96	64.9%	148	100.0%
Question19.F	0	.0%	148	100.0%	148	100.0%
Question19.G	0	.0%	148	100.0%	148	100.0%

Question 19 Chart

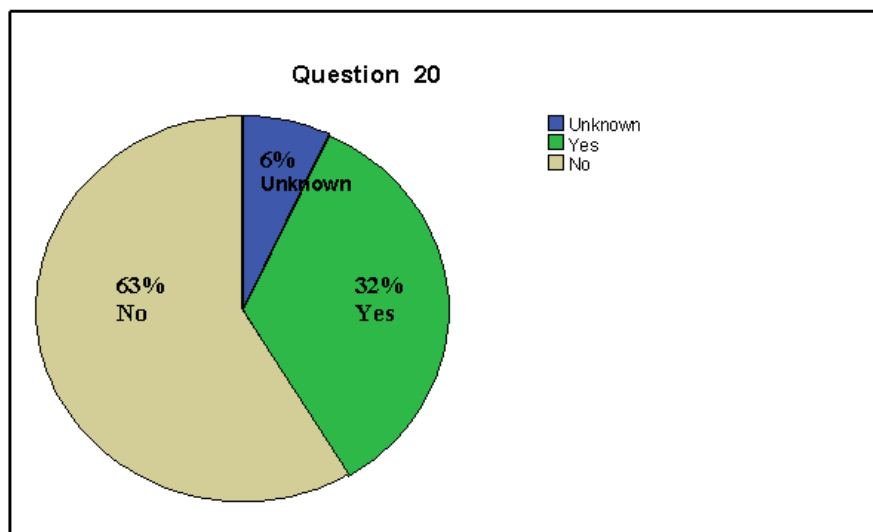
Question 19 was concerned with the level of control the university has over its curricula. A majority (82%) of the respondents reported that the Ministry of Higher Education in the UAE was in charge of the curricula of the examined universities, and that universities did not have much control over curricula; 41% of the respondents reported that the university faculty members were in control of that task; while 35% believed that it was a mix of few including the Ministry, the faulty members, and the accrediting agencies.

Question 20 – Does your university support research activities? Why?

Question 20 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	9	5.9	5.9	5.9
Yes	47	31.5	31.5	37.4
No	92	62.6	62.6	100.0
Total	148	100.0	100.0	

Question 20 Chart



Question 20 sought to identify whether the examined federal higher education institutions were recognized in terms of their research activities. Nearly two-thirds (63%) of the respondents reported that universities were involved in a significant level of research activities; while 32% of the respondents reported that their universities support research activities; 6% did not respond to the question.

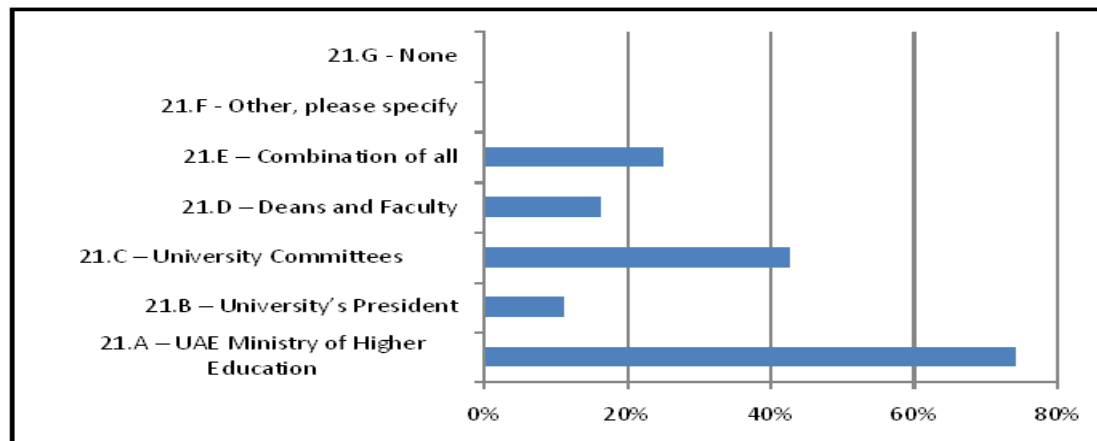
Question 21 - (Multiple Responses) Who decides the university's policies and bylaws?

- 21.A – UAE Ministry of Higher Education
 21.B – University's President
 21.C – University Committees
 21.D – Deans and Faculty
 21.E – Combination of all
 21.F - Other, please specify
 21.G - None

Question 21 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 21.A	110	74.2%	38	25.8%	148	100.0%
Question 21.B	17	11.2%	131	88.8%	148	100.0%
Question21.C	64	42.8%	84	57.2%	148	100.0%
Question21.D	24	16.4%	124	83.6%	148	100.0%
Question21.E	37	25.1%	111	74.9%	148	100.0%
Question21.F	0	.0%	148	100.0%	148	100.0%
Question21.G	0	.0%	148	100.0%	148	100.0%

Question 21 Chart



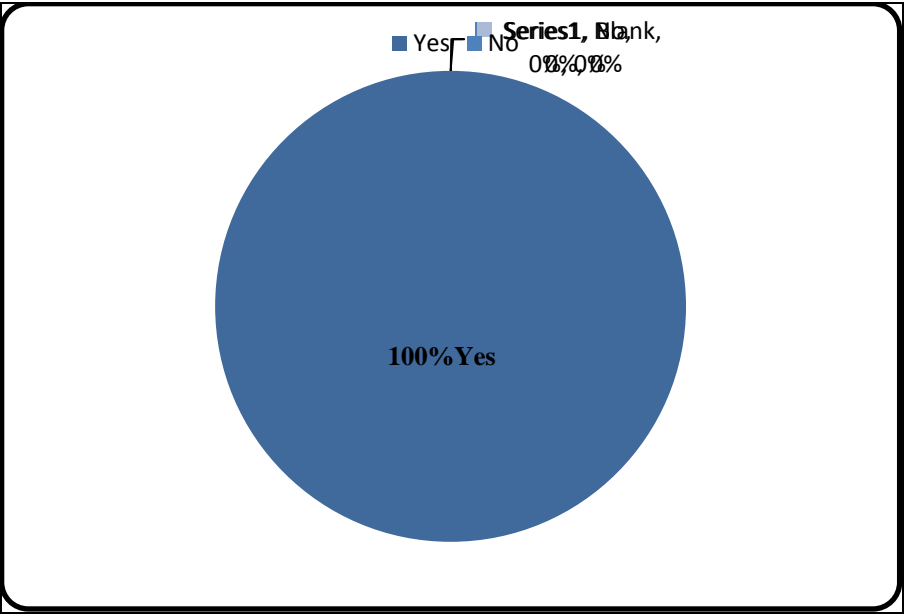
Question 21 was concerned with the level of control the universities have over their by laws and policies. Three quarter (74%) of the respondents reported that the Ministry of Higher Education in the UAE was responsible for by-laws and policies of the examined universities; 43% of the respondents reported that university committees were in in charge of by laws and policies; while 25% believed that it was a mix of a few factors.

Question 22 – Is your university accredited in the UAE?

Question 22 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	0	00.0	00.0	0.0
Yes	148	100.0	100.0	100.0
No	0	00.0	00.0	0.0
Total	148	100.0	100.0	

Question 22 Chart



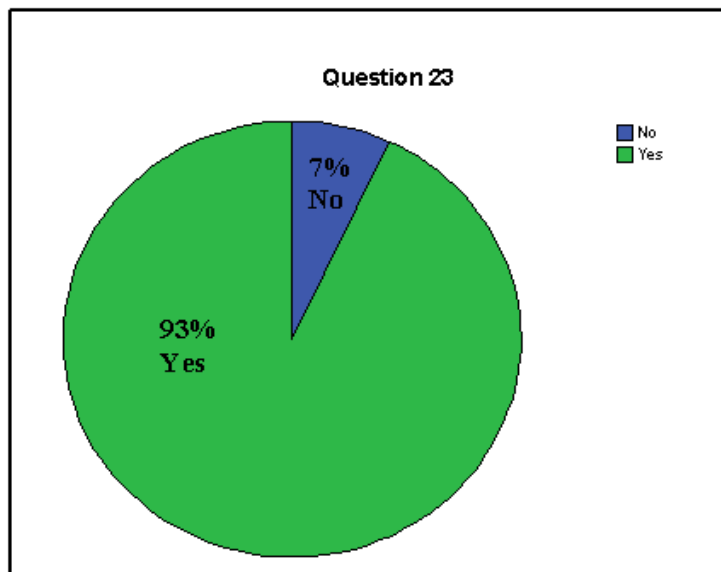
Question 22 examined the accreditation status of the examined higher education institutions. All respondents reported their institutions as being accredited higher education institution in the UAE. Most respondents identified the Ministry of Higher Education in the UAE as the accrediting body. The Ministry of Higher Education in the UAE is the sole higher education accrediting agency.

Question 23 - Is your university accredited outside the UAE?

Question 23 Processing Summary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unknown	0	0.0	0.0	0
	No	11	6.9	6.9	6.9
	Yes	137	93.1	93.1	100.0
	Total	148	100.0	100.0	

Question 23 Chart



Question 23 examined the accreditation status of the examined higher education institutions outside of the UAE. Almost all respondents (93%) identified their institutions as either accredited or not accredited by other agencies or accrediting intuitions outside the UAE. Respondents referred to program accreditations as well, including ABET and ACBSP.

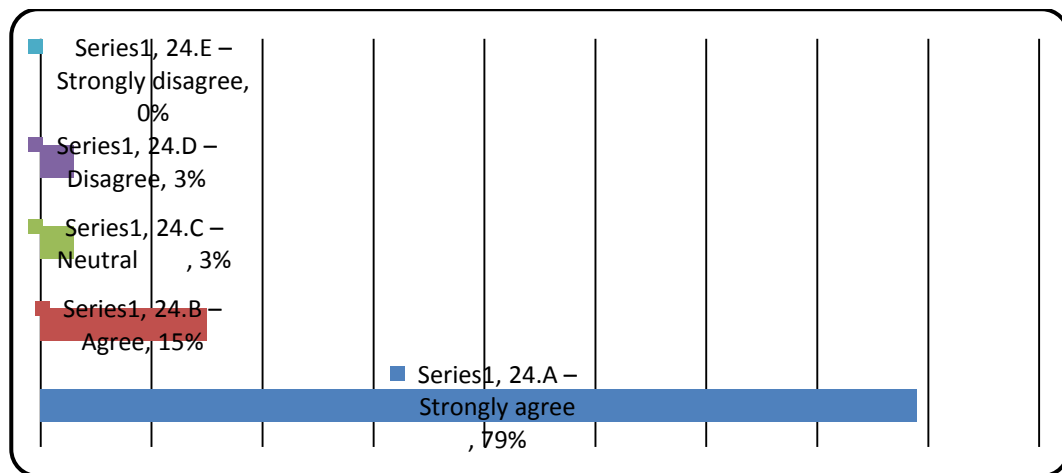
Question 24 - Was your decision to join this university heavily dependent on the university's accreditation status in the UAE?

24.A – Strongly agree
 24.B – Agree
 24.C – Neutral
 24.D – Disagree
 24.E – Strongly disagree

Question 24 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 24.A	117	79.0%			148	100.0%
Question 24.B	21	15.0%			148	100.0%
Question24.C	5	3.0%			148	100.0%
Question24.D	5	3.0%			148	100.0%
Question24.E	0	0.0%			148	100.0%

Question 24 Chart



Question 24 examined the influence of accreditation status of the university within the UAE on the respondents' decision to join the university. A majority (79%) of the respondents strongly agreed that their decision to join the university was heavily dependent on the accreditation status. Around a tenth (8%) of the respondents agreed to this statement, while only 3% reported it as neutral, and 3% disagreed. Most respondents reported that employment in the UAE was dependent on the accreditation status of the university in the UAE.

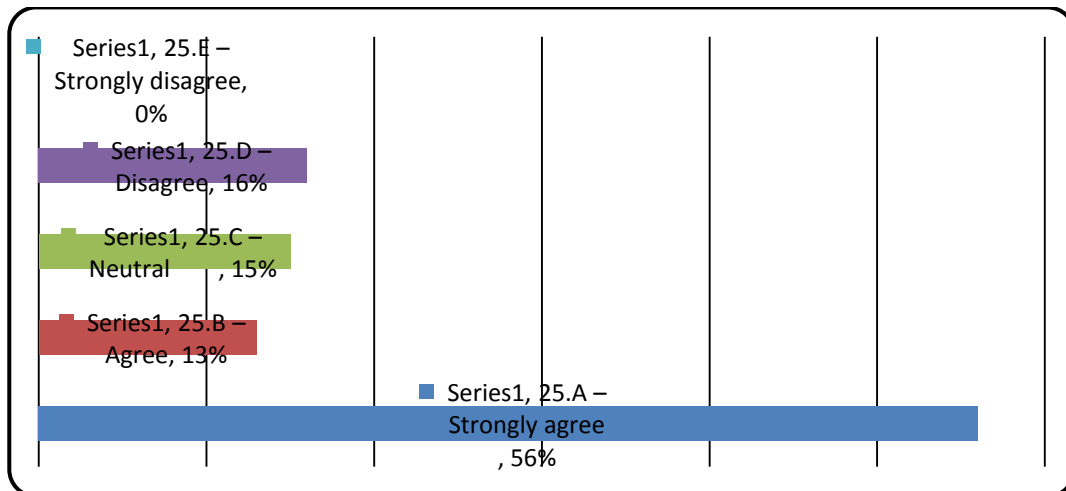
Question 25 - Was your decision to join this university heavily dependent on the university's accreditation status outside the UAE?

25.A – Strongly agree
 25.B – Agree
 25.C – Neutral
 25.D – Disagree
 25.E – Strongly disagree

Question 25 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 25.A	83	56.0%			148	100.0%
Question 25.B	19	13.0%			148	100.0%
Question25.C	22	15.0%			148	100.0%
Question25.D	24	16.0%			148	100.0%
Question25.E	0	0.0%			148	100.0%

Question 25 Chart



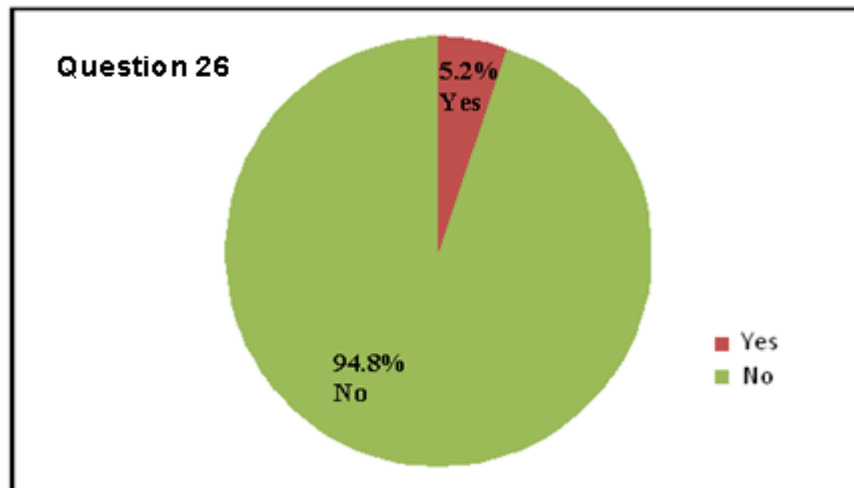
Question 25 aimed to weigh up whether the accreditation status of the examined institutions being outside the UAE influenced the respondents' on their decision to join the university. Around a third (69%) of the respondents either strongly agreed or agreed that accreditation status of the university outside of the UAE influenced their decision to join the university;; while 15% thought it was neutral, and 16% disagreed. Respondents reported that international accreditation enhanced their employment chances more than local accreditation. International accreditation was also viewed as more prestigious.

Question26 – Does your university have any partnership programs with other higher education institutions in the UAE?

Question 26 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	0	0.0	0.0	0.0
Yes	8	5.2	5.2	5.2
No	140	94.8	94.8	100.0
Total	148	100.0	100.0	

Question 26 Chart



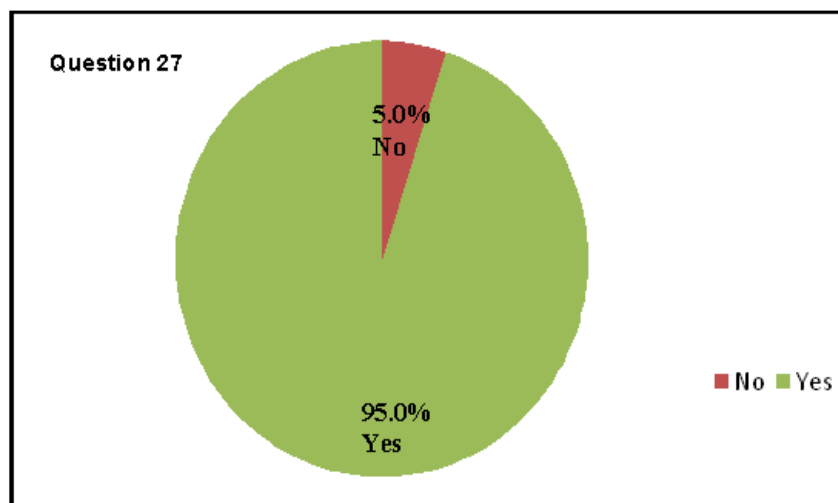
Question 26 sought to identify if the examined higher education institutions were involved in partnership programs or affiliations with other higher education institutions in the UAE. Almost all (95%) of the respondents stated that their higher education institutions were not involved in any education partnership or programs with other federal or non-federal higher education institutions in the UAE., while 5% of the respondents reported awareness, but with no supporting evidence.

Question27 – Does your university have any partnership programs with other higher education institutions outside the UAE?

Question 27 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	0	0.0	0.0	0.0
Yes	141	95.0	95.0	95.0
No	7	5.0	5.0	100.0
Total	148	100.0	100.0	

Question 27 Chart



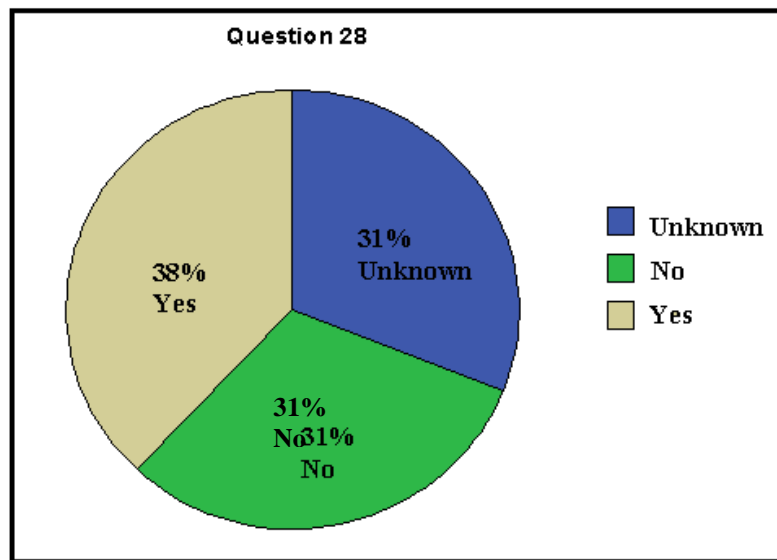
Question 27 sought to identify if the examined higher education institutions were involved in education or partnership programs with other higher education institutions outside the UAE. Again almost all (95%) of the respondents stated that their higher education institutions were involved at one level or another with other international higher education institutions, especially in the UK and the US. Some of the international universities referenced include George Washington University, McDonough School of Business at Georgetown University, Northeastern University, and Florida University.

Question 28 - Does your university have any partnership programs with industry firms in the UAE?

Question 28 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	46	31.0	31.0	31.0
No	46	31.0	31.0	62.1
Yes	56	37.9	37.9	100.0
Total	148	100.0	100.0	

Question 28 Chart



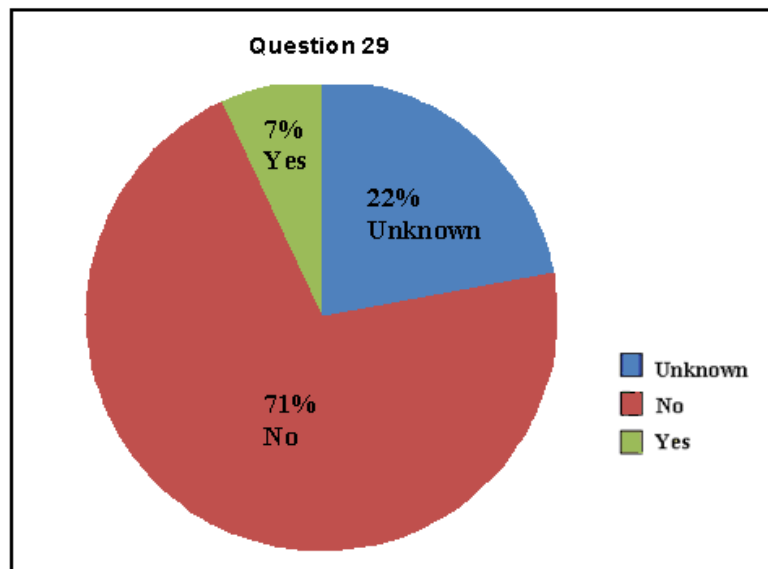
Question 28 sought to identify if the examined universities were engaged in programs with industry firms in the UAE. Only 38% of the respondents reported that the examined institutions have “in different forms ranging from internships to advisory boards and committees” partnership programs with industry firms in the UAE. Around a third (31%) of the respondents reported that their universities had no ties to industry firms in the UAE; while 31% did not respond.

Question 29 - Does your university have any partnership programs with industry firms outside the UAE?

Question 29 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Unknown	32	22.0	22.0	22.0
No	105	71.0	71.0	93.0
Yes	9	7.0	7.0	100.0
Total	148	100.0	100.0	

Question 29 Chart



Question 29 sought to identify if the examined universities were engaged in programs with industry firms outside the UAE. The majority of respondents (71%) reported that the examined institutions did not establish partnership programs with industry firms outside the UAE. A small number (7%) of the respondents believed that their universities had ties to industry firms outside the UAE; while 22% did not know.

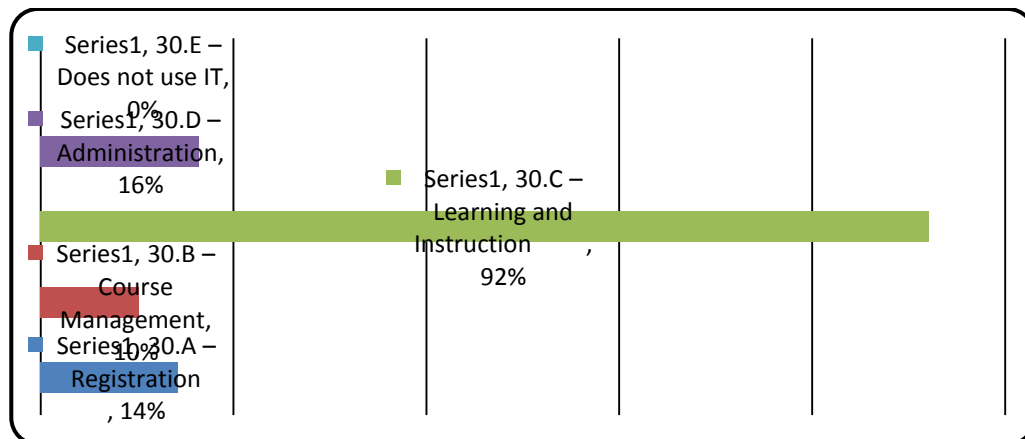
Question 30 - (Multiple Responses) Does your university use information technology for:

30.A – Registration
 30.B – Course Management
 30.C – Learning and Instruction
 30.D – Administration
 30.E – Does not use IT

Question 30 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 30.A	21	14.2%	127	85.8%	148	100.0%
Question 30.B	15	10.2%	133	89.8%	148	100.0%
Question 30C	136	92.1%	12	7.9%	148	100.0%
Question 30D	24	16.4%	124	83.6%	148	100.0%
Question 30.E	0	0.0%	148	100.0%	148	100.0%

Question 30 Chart



Question 30 was concerned with the use of information technology. Respondents were asked to identify if the examined universities are up-to-date in their use of IT, and whether they properly compare to universities in the West. The majority (92%) of the respondents identified that their universities use IT in learning and instruction; 14% reported the use of IT in course registration; while 16% reported the use of IT in course administration and assessment.

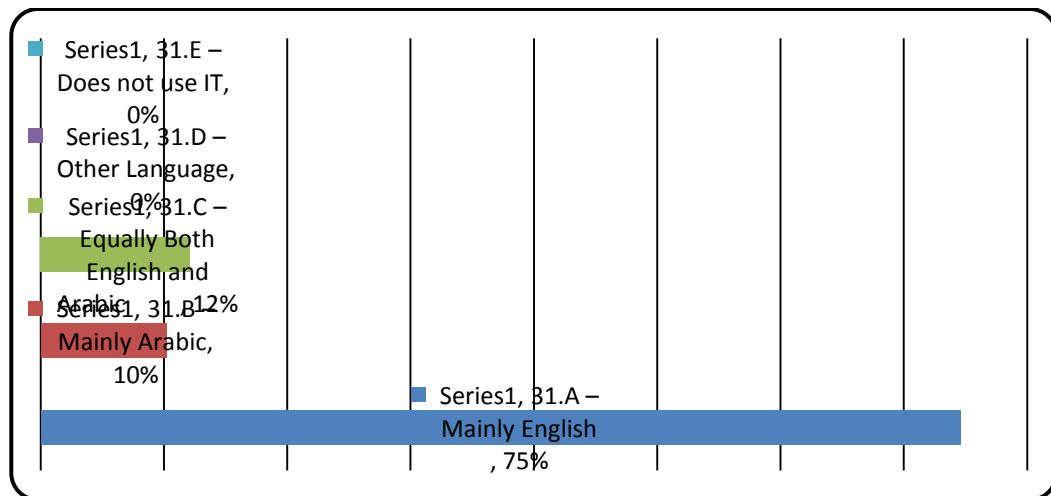
Question 31 - (Multiple Responses) What is the language used by the university's information technology systems

- 31.A – Mainly English
 31.B – Mainly Arabic
 31.C – Equally Both English and Arabic
 31.D – Other Language
 31.E – Does not use IT

Question 31 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 31.A	110	74.6%	38	25.4%	148	100.0%
Question 31.B	14	10.2%	134	89.8%	148	100.0%
Question 31C	18	12.1%	130	87.9%	148	100.0%
Question 31D	0	0.0%	148	100.0%	148	100.0%
Question 31.E	0	0.0%	148	100.0%	148	100.0%

Question 31 Chart



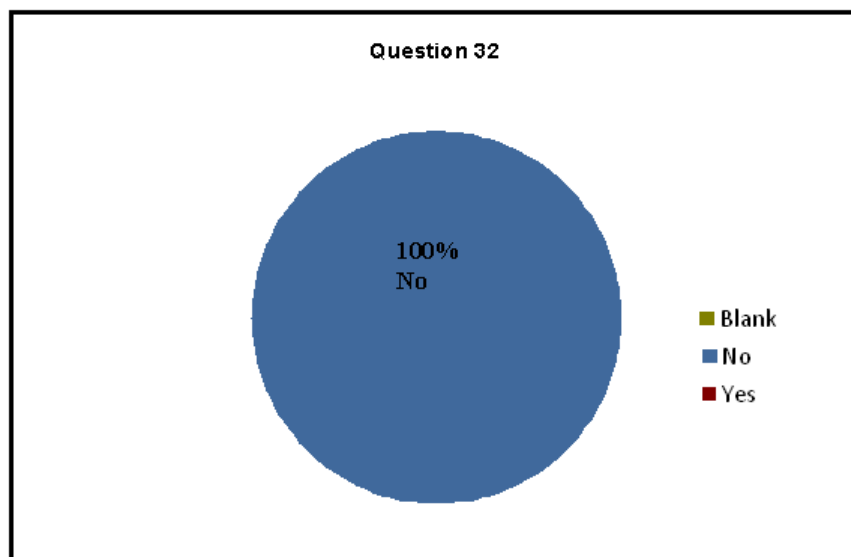
Question 31 looked at the language used in IT systems. Most respondents (74%) reported that English was the principal language used by the university in IT systems, while 12% reported the use of both English and Arabic. Arabic is mainly used in limited HR functions. Systems used include email systems, course management systems, etc.

Question 32 - Do students pay tuition fees similar to those of private higher education institutions in the UAE?

Question 32 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Blank	0	0.0	0.0	0.0
No	148	100.0	100.0	100.0
Yes	0	0.0	0.0	100.0
Total	148	100.0	100.0	

Question 32 Chart



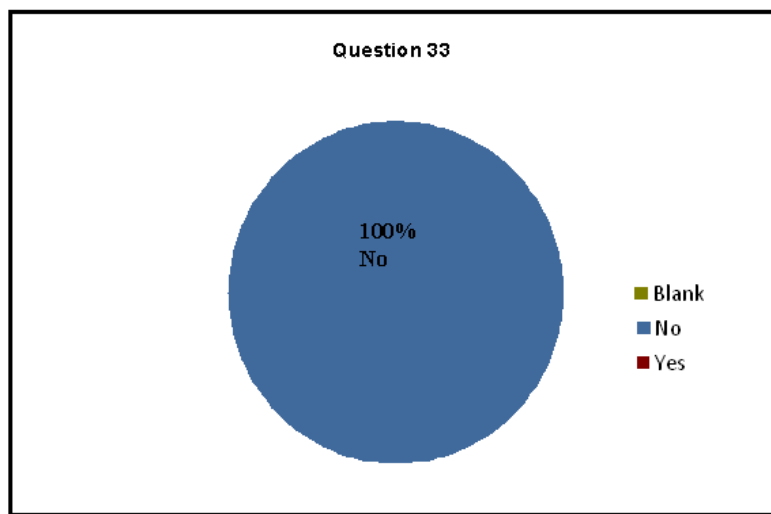
Question 32 enquired about whether students pay tuition fees similar to those of private higher education institutions in the UAE. The answer by all respondents was that students in federal higher education institutions pay no tuition fees. However, students in private higher education institutions do pay a fee. (IS THIS THE CASE?)

Question 33 - Do students pay tuition fees similar to those of higher education institutions in the US or the UK?

Question 33 Processing Summary

	Frequency	Percent	Valid Percent	Cumulative Percent
Blank	0	0.0	0.0	0.0
No	148	100.0	100.0	100.0
Yes	0	0.0	0.0	100.0
Total	148	100.0	100.0	

Question 33 Chart



Question 25 enquired about whether students pay tuition fees similar to those of higher education institutions in the West. The answer by all respondents was that students in federal higher education institutions pay no tuition fees, whereas students in public higher education institutions in the US and the UK do so.

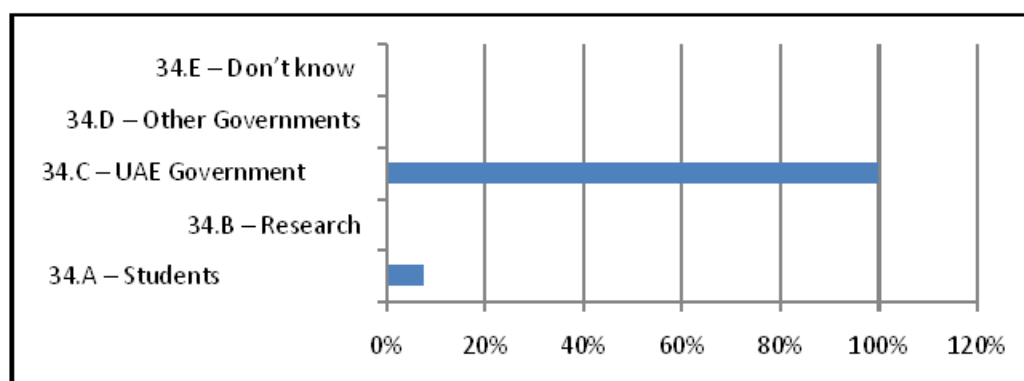
Question 34 - (Multiple Responses) Where does the university receive its funding from?

34.A – Students
34.B – Research
34.C – UAE Government
34.D – Other Governments
34.E – Don't know

Question 34 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 34.A	110	7.8%	38	92.2%	148	100.0%
Question 34.B	0	0.0%	148	100.0%	148	100.0%
Question 34C	148	100.0%	0	0.0%	148	100.0%
Question 34D	0	0.0%	148	100.0%	148	100.0%
Question 34.E	0	0.0%	148	100.0%	148	100.0%

Question 34 Chart



Question 34 sought to identify the methods by which the examined universities receive their funding. All respondents reported that the examined universities received their funding from the federal government of the UAE, specifically the MOHE and Ministry of Finance.

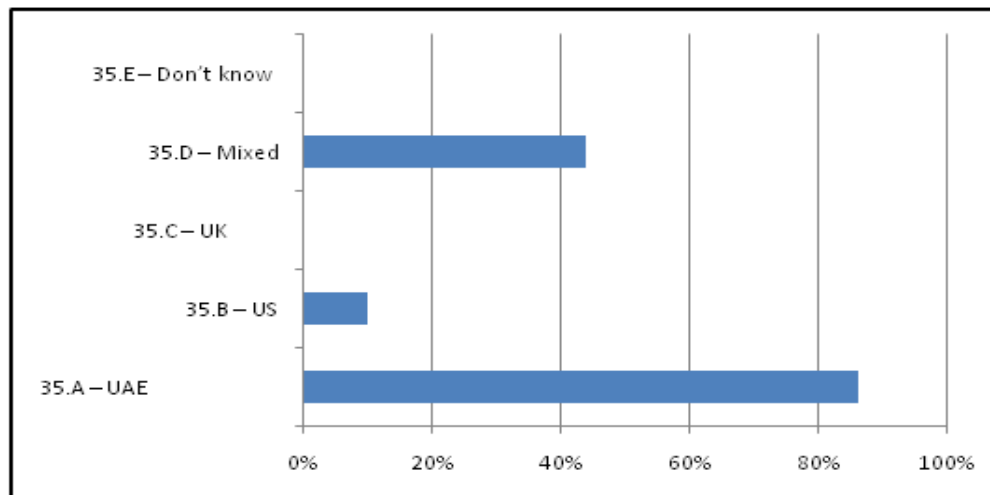
Question 35 - (Multiple Responses) From a cultural perspective, the university represent the culture of (holidays, festivals, etc)?

35.A – UAE
 35.B – US
 35.C – UK
 35.D – Mixed
 35.E – Don't know

Question 35 Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Question 35.A	127	86.2%	21	13.8%	148	100.0%
Question 35.B	15	10.0%	133	90.0%	148	100.0%
Question 35C	0	0.0%	148	100.0%	148	100.0%
Question 35D	65	44.0%	83	56.0%	148	100.0%
Question 35.E	0	0.0%	0	100.0%	148	100.0%

Question 35 Chart



Question 35 enquired about the perception of the culture of the university. The majority (87%) of the respondents reported that the examined universities were observant of the culture of the UAE. The universities observe the religious and cultural holidays of the UAE. Under a half (44%) of the respondents reported a mixed culture between the West and the UAE. They cited specifically the celebration of the new year.

6.3 Documentation

Documents are considered to be a good source of data. Documents may fall into one of two categories: documents found by the researcher and documents generated by the researcher. Documents found by the researcher usually exist prior to the research and are used to support or refute the research argument. A policy manual is an example of a found document. Research-generated documents on the other hand are generated only for the purpose of the research and would not have existed otherwise. Documentation examined in this study included the university websites, annual catalogues, course syllabuses, program reviews, self-studies, strategic plans, curriculum vitae, and accreditation applications, and some others. Availability and access varied by university. ZU had more documents available because many of them were used in the university's application for accreditation.

6.3.1 University Vision, Mission and Goals

The documentation examined revealed that the three federal higher education institutions of the UAE have a defined vision, mission and goals; displayed on a number of electronic and non-electronic documents, including their websites, annual catalogues, and some of the courses syllabuses. Each of the three universities has a unique vision, mission and goals that reflect their focus, direction, and role in federal higher education. For example, while ZU focus is “to embody the same rigorous standards and intellectual elements found in major universities throughout the world”, UAEU's focus is to become an “internationally distinguished comprehensive research university, while adhering to UAE values”, and HCT's focus is to meet the country's “need for a large and skilled workforce”. The university catalogues were the main source of documents available to the public on the university goals. The university strategic plan and self-study reports are not public documents and offered more in the way of history and details about each university's goals and how they served the greater mission of the MOHE.

6.3.2 University Faculty Profile

The faculty profile was examined through the “contacts”, “faculty profile”, and “who we are” pages of the universities’ websites. Recruitment advertisements were also examined. Access to human resources files was restricted. However, many faculty members attached their curriculum vita to their faculty profile. All curriculum vitae found were also examined. In addition, the self-study report included a section that covered this topic. The great majority of the faculty members were either Westerners’ or have been educated in the West, more specifically in North America and the UK. In most cases, they were new entrants or retired seniors. A PhD is a requirement in most cases. A master’s degree may be acceptable if accompanied with substantial experience.

The standards are set by the Ministry of Higher Education; as a result, the faculty profile in the three examined institutions is quite similar. The faculty degree had to come from an accredited university. Procedures to verify credentials are conducted prior to hiring by the Human Resources department. The integrity of the credentials of faculty members is an important part that is highly emphasized within the self-study reports and within the application for accreditation by Zayed University. Although there is not a written policy that favors men over women, the faculty profile included more men than women. The self-study report of Zayed University states that “The University’s philosophy, pedagogy, faculty, and administration reflect experiences in the United States and the West”. The report also states that “The University’s objective to provide the people of the UAE with US-style, English medium education requires the hiring and support of expatriate faculty and staff”. Another self-study report states that “Faculty members are employed on renewable three- to five-year contracts, and there are no provisions for tenure. Faculty members, all expatriates, are evaluated during four standardized review processes: first-contract probation, annual merit pay review, contract renewal, and promotion. Steps are being taken to improve transparency and understanding of the policies and processes related to compensation, the faculty role in governance, and the equitable application of policies regulating workload, faculty evaluation, and contract renewal”.

6.3.3 University Students' Profile

The examined universities websites, admission requirements, and admission applications clearly state that the universities are dedicated to serve UAE nationals. The examined self-study reports and application for accreditation by Zayed University also emphasized the role of the examined institutions in offering tuition-free education to UAE nationals. Students' admission requirements can be seen in the examined universities websites and the annual catalogue. One of the self-study reports emphasizes the nationality of students by stating "The University currently enrolls approximately 3,300 Emirati undergraduates, approximately half on each campus". The report also states "Students should be skilled in critical thinking and analysis, knowledgeable about their own culture and history". Another report states that "In fall 2007 the University enrolled 3,364 female Emirati undergraduates in a pre-baccalaureate program, a general education program, and nine baccalaureate majors. The programs are delivered in a gender-segregated environment that permits a Western-style education for those women whose traditional families prefer that they live at home and attend female-only classes". It also states that "Although the number fluctuates, approximately 85 percent of ZU's entering students come from the national K-12 system and 15 percent come from the English-medium private educational sector".

6.3.4 University Administration and Systems Profile

Most examined documents within this category came from the university website employment opportunities "job description" page. Most of the requirements emphasize experience, that in most cases only exist within the context of a Western country. Access to university systems was restricted for data privacy reasons. However, the universities websites refer to the use of English-based systems such as SunGard Banner, Oracle, and Blackboard. One of the universities strategic plan document states that "The Chief Administrative and Financial Officer is charged to manage the University's financial, human, and physical facilities resources in support of the University's academic mission. The units headed by the University's deans, directors, and supervisors answer through those two administrators".

6.3.5 University Funding Forms

Although the examined universities detailed budget was off limits, the Ministry of Higher Education publishes the total amount of funds given to each university every year. The information can be found in the ‘reports’ section in the university websites. Some of the budget information can also be found in the university strategic planning documents and the self-study reports. The self-study report of Zayed University states that “Zayed University receives primary funding from the federal government of the United Arab Emirates and significant additional support, especially for physical facilities, from the emirate-level governments of Abu Dhabi and Dubai. On the basis of a budget allocation made every three years, ZU presents a detailed budget proposal in the fall of each year to the UAE Ministry of Finance and Industry. A performance-based budgeting process requires that the University accompany its annual request with reports on Key Performance Indicators aligned to ZU’s mission. The University’s internal process of allocation and expenditure is managed and monitored by systems that include strategic planning, financial reporting, and audits”.

6.3.6 University Curricula and Teaching Profile

The university annual catalogues, course syllabus guides, the self-study reports, and the accreditation application by Zayed University were all used for analysis in this category. The three examined universities employ English-based instruction with a few exceptions. The employed curricula are structured by higher education experts from North America. Universities require students to undergo CEPA, which is an English language test similar to the TOEFL exam. All three universities use program outcome and general education competencies assessment. They also have joint programs and activities with other international universities in the US, Europe, and Australia. The self-study report of Zayed University states that “The University’s philosophy, pedagogy, faculty, and administration reflect experiences in the United States and the West. A US like model of higher education is being adapted to fit and serve the country, and at the same time the style and substance of that model is influencing higher education in the UAE and is contributing to national development”. Course learning outcomes are included in the course syllabus.

6.3.7 University Research Profile

No key documents were found in this category. References to research centers are found within the organizational structures of the examined universities, but their key activities are not described. Most academic researchers seem to function on their own and outside the scope of their university. This is evident in one of the self-study reports, as it states that “Teaching is clearly defined in University policy as the primary responsibility of all faculty. Faculty members have principal responsibility for developing and delivering their segment of the curriculum”. Another report states that “The 2003 mission statement calls for the University to “lead innovation” in the UAE through a number of strategies, one of them being research. University Goal 3 asserts that the institution will “foster research, scholarship and creative activity that address the interests, needs, and concerns of the UA. and the region.”, but it does not offer any detailed plans of how this will be achieved.

6.3.8 University Governance, regulations, By-Laws, and Policies

Organization structures of the universities can be found in the Ministry of Higher Education and the universities websites. The philosophy and structure of governing is included in university self-study reports and strategic plans. By laws exist as a separate document. They are not shared publicly. Department heads are provided with a copy of the By-laws. That copy is not available to all employees. Some policies are shared in the university intranet site. Major policies, especially those related to human resources, promotions, salaries, etc. are not publically shared or detailed. The self-study report for Zayed University states that “The institution’s foundational legislation established specific roles for a ministerial-level President and a Vice President/CEO. The enabling legislation also provided for the establishment of the University Council, a board made up of prominent leaders in the United Arab Emirates”. A strategic plan document states that “The Vice President/CEO is an academically qualified national citizen with a nuanced understanding of the UAE’s political, economic, and social context. An expatriate leader thoroughly acquainted with US institutions, the Provost is the chief academic officer to whom the deans and student affairs administrators answer”.

6.3.9 University Cultural Profile

All three examined institutions emphasize the culture of the UAE in their websites, and the website of the Ministry of Higher Education. This emphasis can be found in the vision, mission statements, and goals of the examined institution. The annual events list was also examined to see what events and activities are celebrated by the examined institutions during the academic year. Although not many, most of the events and activities performed are national, heritage, and religious events that promote the culture of the UAE, including the celebration of the national day, the UAE local products day, the month of Ramadan, and the two Islamic Eid holidays. The self-study report of Zayed University states that “The United Arab Emirates is a modern, dynamic, international country that has a strongly cosmopolitan character but is firmly rooted in its Arabic and Islamic traditions. Zayed University reflects this character”.

6.4 Direct Observation

The role of the researcher as an observer varied during the study period. While the researcher was a practitioner researcher on some occasions, she was a participant observer, complete participant, and complete observer at other times. Observation is a time consuming process. The process started with the commencement of this study in 2007 and lasted for nearly five years. It initially started by being non-selective in what the researcher observed; and progressed and advanced into focused observation on selective areas. The main idea behind observation was to discover what people do rather than what they say they do. The following summary of direct observation uses the key themes of the study. The researcher is a full time employee of Zayed University in the capacity of Marketing Coordinator, and is in regular communication with faculty members and students in all the examined federal higher education institutions.

6.4.1 University Vision, Mission and Goals

As an officer of the federal higher education system of the UAE, and as a result of discussion and meetings with other senior members, it has been observed that the three federal higher education institutions of the UAE regularly communicate their vision, mission, and goals in both university and public events such as the annual convocation. That is not to say that the vision, mission and goals are translated into key performance indicators, and that university officials and employees are held to those performance standards. What is missing is a clear link of how those vision, missions and goals serve the greater vision, mission and goals of the federal higher education system of the UAE; and how those vision, mission and goals translate into measurable components in each university.

6.4.2 University faculty profile

The researcher's role within the federal higher education system of the UAE requires much interaction with faculty members to arrange for marketing, events, and internal/external support as required. It has been observed throughout the visits to the different colleges and through interaction with faculty member that the faculty profile of the examined universities consists mainly of faculty members that are either Westerners or have been educated in the West, more specifically in North America and the UK. The faculty contract is standardized. Faculty members are assigned a renewable three-year contract. Benefits received include free housing, tax-free salary, free education for dependents, two months- vacation, and round trip tickets to the home country once a year. The recruitment process usually last between 3-9 months, and is meticulous. Credentials and references of potential candidates are all checked and verified before hiring. Most candidates are usually new entrants looking to start their careers and enjoy the financial benefits, or retired seniors seeking to use their experience, use their free time, and enjoy the financial benefits as well. Faculty members are usually evaluated based on their teaching load and end of course evaluations. Research activities are voluntary for the most part, and are not a key criterion in evaluation. Familiarity with the culture and the environment of the UAE or the Middle East is a plus when hiring foreign faculty.

6.4.3 University Students' profile

As a UAE national and an employee of the federal higher education system in the UAE, the researcher's observation is that the great majority of students are UAE nationals, mostly females. The three universities use separate campuses for male and female students. ZU was initially launched for national females but now it admits national males and international students in limited numbers. Most UAE national students prefer federal higher education institutions because they offer tuition-free education. Most students fall within the age range of 17-25 and come from different socio-economic backgrounds.

6.4.4 University Administration and Systems Profile

The university administrators are usually classified in three categories: Professional Westerners, Professional Arabs and other nationalities, and UAE nationals. Professional Westerners are usually given key administrator positions. Most directors and high-level specialists in the examined universities are from North America, Europe and Australia. This includes positions such as the director of Human Resources, Director of Information Technology, Director of Finance, etc. Arab professionals usually occupy positions where Arabic language skills may be required. Although the language of instruction is English, the universities still need to legally report to the UAE government using the state's official language, which is Arabic. Arab professional are only paid a fraction of what Western professionals are paid. Most Arab professionals come from Egypt, Jordan and Syria. For UAE nationals, employment is protected and because of that some UAE nationals seek positions that are not demanding in terms of work hours and work load. Similar to faculty, foreign administrators are hired on a three year contract with similar benefits to those of faculty members. Most of the information systems used for administration are similar to those of universities in North America and Europe. The examined universities use systems such as SunGard Banner and Oracle.

6.4.5 University Funding Forms

The examined universities are fully funding by the federal government. Although the minister of higher education has been encouraging universities to adopt new methods to increase and diversify funding, the truth is these universities are not yet in a position to start charging students tuition fees.

ZU initial attempted to enroll international students and charge tuition fees but this was a complete failure. Adjustments have been made since then to make the university more appealing to international students. Some of the examined universities have established training centers for professional studies, but these are still in the infancy stage and they have not delivered the desired results yet. The amount of allocated budget received each year is decided by the budget manager in the Ministry of Finance.

6.4.6 University Curricula and Teaching Profile

It has been observed that the three examined universities employ English-based instruction and curricula. The employed curricula are structured by higher education experts from North America. All three universities use program outcomes and general education competencies assessment. Program outcomes and course outcomes are included in course syllabi. Partnerships and alliances are formed with international universities in the US, Europe and Australia. The admission requirements reflect specific English based models, including the CEPA exam, which was developed to facilitate the placement of students for English language study purposes across the three higher education institutions. Since 2006 CEPA has also included a math component in order to facilitate the placement of students into math courses at the three higher educational institutions. CEPA-Math is used for placement in foundation programs only, and not for selection. However, CEPA-Math is a compulsory part of the application process, and students without a CEPA-Math score will not be considered eligible for higher education courses.

6.4.7 University Research Profile

The researcher has conducted several visits to the research units within each university and has interviewed some of the faculty members on this issue.. It has been observed that although the UAEU mission statement talks about the importance of research, key academic research initiatives and activities do not seem to be the main focus of federal higher education in the UAE at the moment. Research centers are found within the organizational structures of the examined universities, but their contributions are not widely felt.

Most academic researchers seem to function on their own and outside the scope of their university. Many of the researchers realize the need to stay current in their fields and stay connected with other researchers and home institutions. A few initiatives have been recorded in the past few years to help launch university-wide research. ZU International Symposium is an example of these initiatives. This academic research symposium, organized by Zayed University in collaboration with UAE University, is linked to the journal "Learning and Teaching in Higher Education: Gulf Perspectives" (ISSN 2077-5504). The symposium sponsors and supports a range of local, regional and international conferences to share knowledge and expertise, and to showcase the research accomplishments of faculty from the three federal higher education institutions among others. It also includes plenary talks by local and international researchers, as well as poster presentations, on topics including learning styles, threshold concepts and e-learning.

6.4.8 University Governance, Regulations, By-laws, and Policies

All three institutions are headed by the same president, who is also the minister of higher education, and who is also a member of the royal family. All three vice presidents are UAE nationals. The examined institutions are not autonomous. High level policies and regulations are formed at the top. Faculty members do not have a senate or any tangible participation. Most of the existing committees consist of the same people, who are already in charge of key business operations in the organizations. By laws are not publically shared.

6.4.9 University Cultural Profile

The researcher's observation as an employee and a participant in annual events is that all three institutions emphasize the culture of the UAE. Dress code, events and activities that take place within these universities, and the official communication of the minister of higher education, emphasize this. Graduating UAE nationals, improving leadership skills, increasing the self-confidence of students, and making UAE nationals proud of their heritage and identity are among the key goals of the institutions. The message is "English-instruction and American curricula are being used because they will help the UAE and the graduate in advancing to the future; however, UAE heritage and identity are a first priority".

Several community and religious events take place every year to emphasize UAE nationalism. The culture of the UAE is highly observed. The examined universities have separate campuses for male and female students. Campuses are fenced and security is strong in female campuses. Males are not allowed entry to female campuses. Special IDs are required to register entry and departure of female students. It is very important to assure UAE families that female students are protected on the campus. Females make up 65 per cent of the UAE population. They currently occupy more professional positions than their male counterparts. In addition, group transportation is also provided. Praying areas are allocated for prayers. Prayer times and a special schedule for the month of Ramadan are observed.

6.5 Conclusion

This chapter presents findings which highlight the status of the federal higher education system in the UAE. The findings were gathered through quantitative and qualitative data collection instruments including questionnaire, direct observation, and documentation collected from the three different federal higher education institutions between 2009 and 2012. The data collected provides an understanding of the environment and surrounding culture of the three federal higher education institutions, their faculty profile, their student profile, their business processes, and the governance structure. Discussion and analysis of the above in order to answer the research questions will be covered in chapter 8.

Chapter Seven – Field Work Results - Interviews

7.1 Introduction

In this chapter the findings of the total of 18 detailed interviews conducted with university senior managers and officers, including the university president, vice president, and provost are presented. Six interviews took place with Zayed University (ZU) senior management, six with senior management in the Higher Colleges of Technology (HCT), and 6 with senior management in the United Arab Emirates (UAE) University.

7.2 Findings

In this section, the findings of the interview questions are presented. Using the main themes of this study, the interview questions can be classified into eight different categories ranging from the vision of the federal higher education system to the vision of the higher education model adopted.

1. What is the vision of the federal higher education system in the UAE?

When asked about the vision of federal higher education in the UAE, many interviewees referenced events and documents where the vision is usually communicated, such as the annual convocation, or MOHESR website. While only a few interviewees were able to communicate the vision as it exists, the majority were able to draw on certain key principles such as ‘to evolve a well-educated society’. And while there was a great deal of consistency from the interviewees in the different universities on their understanding of the vision in terms of learning and personal growth, integrated planning, educational opportunity, diversity and breadth of academic offerings, there was one main difference or lack of understanding of the role of Islamic values in education.

Many of the interviewees emphasized the need to parallel the global standards of higher education in developed countries. One of the deans stated that “While the UAE is considered a developing country, the UAE is a rich-developing country. The availability of financial resources allows the UAE to further advance itself, including its higher education system than other less fortunate developing countries”. The provosts and the deans referred to the North American system as the current leading higher education system in the globe, and while they believe that adopting the North American model has many benefits, they also believe that it has to be tailored to the needs and the environment of the UAE. Many of the interviewees emphasized the role of each university in attaining the greater vision of the federal higher education system in the UAE. The UAE nationals interviewed drew on the core values such as ‘Islamic values’ and ‘personal growth’. One senior member mentioned “it is crucial that the vision of the UAE federal higher education system is reflective of the people of the UAE and their goals and aspirations as a nation”. There was an agreement from the interviewees that the vision of the UAE federal higher education system was not in a vacuum and it was the result of a long and deliberate, thought through process, and is destined to succeed. Most of the interviewees did not believe that the vision belonged to one man, but it was a group effort of very experienced Western professionals in the North American higher education arena.

2. What is the vision of the university, and how does it relate to the vision of the federal higher education system in the UAE?

As one of the provosts stated “the three universities are here to support and complement each other, not to compete with each other; it takes three of us to attain the goals of federal higher education in the UAE”. Almost all interviewees shared that vision and reported that the vision of each university was a key element of the greater vision of the UAE system. All interviewees, regardless of their role, believed that there is a direct relationship between the visions of the three federal higher education institutions and the vision of the UAE federal higher education system created and designed by the Ministry of Higher Education.

Many of them also stated that while the three federal higher education institutions have many similarities, each university has a unique role that it plays within the federal higher education system. These unique roles are expressed in the vision statements of the three universities. For example, one of the provosts stated “UAEU vision statement emphasizes the role of the university as a research center; ZU emphasizes the role of teaching women and adopting a very close higher education style to North America. HCT focus is on tertiary education and technical skills. But again, while each university vision statement may emphasize a unique focus, they all share the same goal of meeting international standards, and they all follow a similar path in achieving that goal, including outcome assessment”. The three universities are employed to fulfill different needs that cannot be addressed by a single institution.

3. What steps have been taken by the university to implement these visions?

Although many of the interviewees agreed that the level of autonomy each university exercises is not similar to what a private institution or an institution in the West may enjoy, they also agreed that major steps have been taken to translate the vision of the UAE federal higher education system into reality in the ground. Interviewees referred to their ability to hire faculty from the US, Canada and the UK, and to use seasoned administrators in key areas of the university. As one of the deans stated “The degree of control is much higher in the UAE than what I have experienced back home in the US, we just execute, but we have a lot more money to do other things”. Several interviewees stated the three universities have recruited and hired faculty members and administrators from North America and Europe to create and deliver curriculum and teaching environment to the highest international standards. Other interviewees referred to the strategic plans now established for all three institutions. As one of the senior officers stated “we have not only purchased and utilized up-to-date technology structures similar to the best universities in North America, we have hired the people that created those systems to implement the vision of the higher education system. Modern facilities with classrooms equipped with the latest technology have also been established for students. Joint programs have been established to allow for knowledge exchange.

4. **Does the university follow a specific higher education model, and why was that model chosen? Has this higher education model proven successful in federal higher education in the UAE, and why?**

Many of the interviewees seemed to struggle with this question. While they all agreed that the federal higher education institutions in the UAE follow a consistent-specific higher education model, they did not feel comfortable labeling that model as American. As one dean stated “This is not exactly how a university complete model in the US would look like”. In most cases they referred to the higher education model as a North American like higher education model. Many of the interviewees agreed that the UAE model resembled the US model the most with some variations. Many of them also agreed that in order for the US model to work in the UAE, changes were warranted. Some of the interviewees believed that the UAE model should be changed even further to resemble the US model, especially in the area of governance. As one of the provosts stated, “A model is not only curriculum; it is a culture that fosters certain beliefs and values, including freedom of expression”.

The majority of the interviewees stated that the UAE higher education model was chosen after the US system, because the US system is the most successful and productive. Interviewees referred to the products of the US higher education system, represented by the number of Nobel Prize winners, major world companies (e.g. Microsoft, Oracle, Apple), advanced military technology, best higher education institutions (e.g. Harvard, George Washington), and most of the world research and publications.

Interviewees reported that the new UAE federal higher education system has proven successful in the few years it has been adopted. Many of them referred to the accreditation status ZU received from the Middle States Association of Colleges and Schools. Many of them referred to the knowledge and skills possessed by the UAE graduates today compared to those before the implementation of this model.

5. What is the university mission and goals? How were they constructed? And why were they chosen over other mission goals? How are the university mission and goals related to the federal higher education system mission and goals?

Many of the interviewees were able to relate their university mission and key goals. They were also able to cite some of the plans to address those goals. While there were some consistencies in many of the goals such as “improving the quality of education”, there were some goals that were specific to each university. For example, ZU was focused more on goals that relate to the undergraduate programs than UAEU, and HCT was focused more on goals related to technical degrees than both ZU and UAEU. As one of the interviewees stated “sometimes we know what the goal is, but it takes us time to debate how to get there”. Another officer stated “some of the goals are easier to address than others, some are clear, and some are vague”.

Interviewees also stated that in the UAE, university goals are not specific to the university; they are sometimes expected to go beyond the scope of education to address national needs. As one senior officer in ZU stated “ZU intends to fulfill the mission of supporting the economic and social advancement of the UAE through research and outreach; this is a national security goal”. HCT officers had a similar view as well. They reported that HCT mission goes beyond education to fulfill the labor market need with tech-savvy qualified UAE nationals, and decrease foreign labor.

Interviewees reported that the mission statements of the examined universities can easily be linked to the mission statement of federal higher education in the UAE. As one interviewee stated “to develop knowledge, skills, scientific research, quality educational systems, social responsibilities, increase employment rate of nationals, decrease dependence on foreign labor, and strengthen the economy and the nation; these are all universal goals that will serve any nation, anytime”. Another interviewee stated “what is happening here is not an aberration, we work hard and we meet regularly with officials in the MOHESR. There is a lot of coordination”.

6. **How would you describe the university's faculty profile? What is the university strategy behind selecting this specific faculty profile? And how does this faculty profile help in achieving the goals and the mission of the university? Is the faculty profile mandated by the federal higher education system in the UAE?**

According to many interviewees, the faculty profile in their universities is a natural reflection of the vision, mission and goals of federal higher education in the UAE. As one of the interviewees stated "For this to work, we need to hire faculty members with experience in the North American higher education model, it does not make sense to hire anybody else". Interviewees referred to the use of Egyptian instructors in the era of 1970-1990 when the UAE higher education model was based on the Egyptian higher education model. As one dean stated "With this shift to English-based higher education, it only makes sense to use faculty members that have been educated in the West". One of the provosts stated "Most faculty members have already been trained in their home institutions, they come to the UAE with enough experience to conduct their mission, and we can definitely use that to our advantage". When asked if the faculty profile was mandated by the Ministry of Higher Education, many of the interviewees were inconsistent with their answers. As one of them stated "there is no mandate from the MOHESR that says you have to hire Americans, it is really a mandate by the curriculum, instruction language, and higher education model". Another interviewee stated "MOHESR decided what higher education model is used, if they decide tomorrow that we are going to adopt a new Australian model, we will hire Australians".

Interviewees reported that faculty play a major role in achieving the goals of the higher education system. As one of them stated "we don't train, we hire faculty already trained and ready to provide value". Interviewees reported that the UAE and other surrounding countries do not have the required expertise. As one interviewee in ZU stated "faculty bring more than just instruction, students get to interact with the real thing, an instructor whose native tongue is English, who was raised in a different culture, and who is well familiar with this delivery mode in the West".

7. **How would you describe the university's students' profile? What is the university's strategy behind this students' profile, and how does it assist the university in achieving its vision, mission, and goals? Is the university profile in the university similar to other federal higher education institutions in the UAE?**

Interviewees agreed that the UAE needs as many national graduates as possible to fill the employment gaps and allow UAE nationals to take leadership positions in their home country. That is why the three universities are focused on UAE nationals, and that is why higher education is free. As one dean stated, "the only way to build this country strong is to provide UAE nationals with the tools to succeed, not only in business and management, but also in aircraft maintenance and pharmacy, we need to Emiritize jobs, all jobs". Another interviewee stated "I understand that UAE nationals join private universities, I understand that not all UAE nationals come to the federal higher education institutions, my goal is to change that; I want all of them to come here, I want all of them to see the quality of what we offer". Another officer stated "we need to do more to attract UAE nationals, especially at the graduate level".

Many of the interviewees agreed that UAE females now represent the majority of students, and that they must make some changes to accommodate the changes in the students profile in the UAE. Other interviewees stated that they were surprised to see the numbers of international students interested in joining the federal UAE higher education institutions. As one of the interviewees stated "international students and/or non-UAE national students living in the UAE can bring more than just revenue to the federal system of the UAE, many of these students are bright, motivated, and can bring a different perspective to us". Another stated "while I like the potential, I think it might cause us to lose focus of UAE nationals and their needs".

8. **What higher education information technology systems are being used by the university to serve its administrative and students' needs? And why and how were these system chosen? Are these systems being used in other federal higher education institutions?**

Interviewees referenced learning management systems, administrative systems, course registration systems, human resources systems. Some of the names mentioned included Banner and Blackboard. One of the provosts stated “these are the same systems used in the US and Europe, and we want to use a similar infrastructure”. One of the directors stated “everything thing in this university should provide a similar experience to what a student in the US would experience, that includes systems and technology”. Another interviewee stated “systems and technology are not the problem, finding experienced professionals who can effectively manage these systems is the problem”.

Interviewees stated that these information systems allow universities in the UAE to bench-mark against universities in the US and Europe. They also allow universities in the UAE to keep up-to-date with new practices, features, and functionalities. All three universities use the same set of information systems. Plans are underway to uniform all processes and system to create a unified reporting structure where the performance and data of all three universities can be easily compared.

Interviewees reported that most systems were chosen based on previous experiences in the US. One of the interviewees stated “there are not many to choose from, there are few vendors, and everyone knows what most universities use, and the government of the UAE is supportive”.

- 9. Where does the university receive its funding from? And how much influence do funding forms play on university's policies and decisions? Do all federal higher education institutions use similar funding forms?**

All interviewees confirmed that the chief source of funding is the Ministry of Higher Education/Ministry of Finance. One of the provosts stated "I don't see a problem with receiving government funding, it happens everywhere, only here we receive more funding. If we received no funding from the government, our priorities would definitely change, so this form of funding allows us to focus on the mission and goals we need to address". A somewhat different view was given by another interviewee, as he stated "I am not opposed to receiving full funding from the government, it is not a bad thing, what I am slightly opposed to is the influence that comes with that, but that is the nature of the beast, the financier gets the influence".

All interviewees also confirmed that the funds are allocated and dispersed according to MOHESR instructions and guidelines. Funding is allocated on an annual basis. The examined directors stated that "Past year's expenditures are reviewed and funding for the new year is then approved". Deans and directors are required to submit an annual plan of their budget. Interviewees stated that although it may seem that there is no room for budget changes or reallocating items, once funding is approved, universities have some flexibility in doing so.

Interviews reported that the great majority of funding goes toward salaries of expatriates and operation expenses. "We are thinking of new ways to diversify our funding sources and become less dependent on the government", one provost stated. "All three universities offer graduate programs now; unlike undergraduate education, graduate education is not free. We try to be very competitive with our tuitions to attract students to study with us. We also offer a number of certificates that full time employees can use to advance their careers for small tuition" one of the directors stated.

**10. Who decided the university curricula profile, and how is it constructed?
Is it part of the UAE federal higher education system?**

Many interviewees stated that senior faculty members in cooperation with higher education experts from other institutions in North America have the responsibility for designing, evaluating, and revising the curriculum and educational policies. One of the deans stated that “Faculty’s voice is not heard in matters such as decisions to add or drop academic programs or courses”. Learning goals are linked (in the catalogue and on syllabi) to outcomes. Curricula are supported by learning resources in the learning systems, and library resources are somewhat limited. One of the provosts stated that “Graduate programs are in their infancy but seem well conceived, with much consultation provided by strong American counterpart programs in fine universities”. Another provost stated that “The examined universities offer a general education program of courses that enhances and builds connections between the global, regional, cultural, technological and humanist objectives of the University’s mission”. This curriculum has broad support among the faculty although several members expressed concern that it complicated efforts in their major area to introduce important course material earlier in students’ academic career than is currently possible. One of the provosts also stated that “The curricula of the three universities are not identical, but they are similar in terms of infrastructure and direction. They are all part of the vision, mission and goals of an integral federal higher education system”.

**11. What factors influence the university’s research profile and activities?
Do federal higher education institutions collaborate in research activities?**

The majority of interviewees including provosts and deans did not report any collaborative research activities among the examined institutions, other than the annual ZU symposium.

While they all acknowledged that research is an integral component of higher education and is probably the future of higher education, many of them also acknowledged that the focus in the UAE system right now is teaching. As one of the deans put it, “Perhaps in the future. Right now, the most important thing is to establish a learning system similar to that of North America, and allow students to meet the required international standards”. Another dean stated that “Students are asked to participate in research activities. Universities have a research center, but the teaching load of faculty, and the available research resources don’t greatly encourage research”. Interviewees confirmed that many faculty members conduct research and publication on their own, mainly to stay informed and maintain their credentials if and when they decide to return to their home countries.

Interviewees reported that the emphasis has to come from the MOHESR, and that resources need to be available to allow faculty and students to conduct research. One of the interviewees stated “as we go through the different accreditation processes, it will become more necessary for us to address the research issue”.

12. How would you describe the university’s organizational structure and governance system? What factors are behind this organizational and governance structure? Is the same system used in all federal higher education institutions?

One of the provosts stated that “The governance structure of the examined universities is set forth by federal decrees, and it presents the largest arena of difference between the situation observed in the UAE and traditional American practice”. One of the deans stated that “Although the decree provides for the eventual creation of a governing board to be known as the University Council, the membership of this body was appointed”. The authority, powers and duties assigned to it by the Federal Decrees are currently exercised under a waiver from the UAE Government by the President of the University, a member of the royal family and Minister of Higher Education and Scientific Research. One of the interviewees stated that “unlike many universities in North America, the university vice president who is a “UAE national” is the ultimate decision maker.

Deans and faculty members are not being integrated into the institution's governance as effectively as their experience, academic background, and talent would seem to make desirable. The democratic structure usually seen in the West is not familiar in the region".

UAE national interviewees stated that "This is the same system we use in all three federal higher education institutions, it is a hierarchical system, and we are a hierarchical society. While some may not agree with this system, we believe it is the best structure we can use at this time to serve our needs. Just because we believe that the US higher education model is successful, it does not mean that we have to copy everything as is. We need to keep in mind the society, the culture, and the environment where this system will be implemented. It only makes sense".

13. Does the university have its own by-laws and policies? If so, what factors were behind these by-laws and policies? And how'd you relate these by-laws and policies to the by-laws and policies of federal higher education in the UAE?

Interviewees agreed that each examined university has its own by-laws and policies. Many of these by-laws and policies follow those of the Ministry of Higher Education, especially the broad themes; while other policies, especially low level operational policies may be developed by each institution. As one director stated, "as long as they don't violate or contradict MOHESR policies, they could be developed locally". "Financial, budget, educational, and employment policies are not the same as computer use policy", one of the interviewees stated. Another director stated that "Password protection policies are left to the IT department of each university, they only affect their respective campus, and they don't come from MOHESR". One of the provost stated that "The past two years have witnessed a trend to reduce spending and become more efficient by standardizing policies, systems, and charts with the intention of ultimately having a unified structure for all three universities".

- 14. How would you describe the university cultural profile? Does the university promote specific culture(s)? And why? Is this mandated by the federal higher education system in the UAE? If not, what reasons are behind the cultural profile? And what are the goals behind it?**

All interviewees agreed that the three universities promote the culture of the UAE and nationalism. One of the deans stated that “This is part of our mission: Teaching UAE nationals, promoting UAE culture, and preserving the religious and cultural tradition”. Another dean stated that “One of the first things we do when faculty are hired is to educate them on the cultural and religious boundaries, more specifically when dealing with female students, and/or their families”. An interviewee stated “The UAE, although modern in infrastructure, is still a tribal society”. Many interviewees referred to students’ observance of traditional dress code, prayer and fasting times. Other interviewees understood why mixing of sexes is not welcome unless within a class environment. One of the interviewees stated “universities and faculty need to be aware of their surroundings in order not to offend local families”. One provost stated, “This is a shared vision by the Ministry of Higher Education, the goal is to encourage UAE nationals to send their kids for education, especially females since they make up the greater portion of population in the UAE. If families are offended, they will not send their daughters to receive education, which means less UAE graduates, and more expatriates, and we are back to where we started”.

Chapter Eight – Discussion and Conclusion

8.1 Introduction

This research study sought to explore the key characteristics of the emergent federal higher education model in a developing country, namely the UAE and the reasons for its emergence. The study also looked at the applicability of the World Polity theory by comparing the key characteristics of the federal higher education model in the UAE to those of developed - Western higher education models, namely, the North American model of higher education.

The earlier chapters of this study presented findings from the literature review related to higher education, World Polity, and review of the history, development, characteristics, and the culture of the UAE. The research methodology, findings and discussion of the case studies conducted in the UAE, along with a summary of the findings, were presented in latter chapters.

The purpose of this chapter is to synthesize the discussion of the foregoing chapters in the context of the research questions and the original aims and purpose of the study as outlined in chapter one, and then draw a conclusion. The chapter is organized as follows: discussion; summary and conclusion; limitations of the study; and areas of future research.

8.2 Discussion

In this section, the researcher discusses the research questions of the study in light of the findings from the literature review and the findings from the case study.

Higher education in the UAE started with the establishment of UAEU in 1976. For many years, the UAE federal higher education system relied heavily on neighboring countries, more specifically Egypt, for curriculum structure and teaching instructors. Students seeking higher education in the UAE had to travel to the state of Al-Ain since UAEU did not extend any branches beyond that Emirate.

In 1988, in response to the growing need for a skilled UAE work force, HCT - a tertiary higher education institution - was established with four campuses spanning four different Emirates. A major shift in the federal higher education system came in 1998, when the country leadership realized that oil will not last forever and that UAE cannot remain dependent on a foreign work force. UAE nationals were outnumbered and out skilled in their own country. In realizing that, the leadership decided to focus on higher education.

The country's leadership decided to host and implement higher education models that are compatible with the best breed of higher education models available in the world. In 1998, Zayed University was established as the first federal higher education institutions in the UAE using English as the language of instruction, American-like curricula, and utilizing IT technology. In addition, the UAE decided to host two private higher education institutions, the American University of Sharjah, and the American University in Dubai. Both higher education institutions are accredited by US accrediting agencies. This experience was the first of its kind in the region. While countries like Egypt and Lebanon have for long hosted American institutions such as the American University in Cairo, or the American University in Beirut, this was the first time that a federal higher education institution from the region decided to adapt to the standards and policies of a foreign higher education agency. Following the successful experience of ZU, the two other federal higher education institutions took similar steps to change their curricula, instruction language, and faculty profile.

The first research question is concerned with the main characteristics of the current federal UAE higher education model, and the rationale behind its emergence.

The data collected throughout this study confirms that the new federal higher education model in the UAE is based more directly on the American system of higher education as evident by its philosophy, curricula, pedagogy, faculty, and administration; these reflect experiences in the United States. The American orientation is manifest in a non-exam centered curriculum and methodology, as well as emphasis on outcomes based education.

The instruction language is English, and university faculty and personnel come from the US, Canada and the UK. Federal universities now require a two-year foundation for students to develop general knowledge and skills before choosing a specialty, which is another aspect of the overall American orientation. However, while the UAE federal higher education model imports teaching material and methodology from the West, it does not capture many other integral aspects of that model, including democracy, governance, and innovation. This is not to say that the federal higher education intuitions in the UAE have not taken strides toward the right direction.

Based on the consistencies of the data collection instruments using the nine themes of this study, it is the researcher's conclusion that the UAE has developed a distinctly federal higher education Emirati model. The model's practices address the specific needs of its students and national needs; focus on preparing graduates to become a new generation of leaders in the UAE, support Emiritization, boost nationalism, and decrease the dependence on foreign labor. While promoting openness, the institutions also encourage sensitivity to Islam and to the religious values and practices that shape students' sensibilities and form the national cultural context. To better illustrate the characteristics of this model, the main themes of this study are briefly reviewed in light of the findings from the field work.

University Vision, Mission and Goals.

The data gathered from the questionnaire, interviews, documentation, and observation for this study confirm that the UAE federal higher education system has a clear and distinct vision, mission and goals communicated and promulgated to key stakeholders. Each of the examined federal institutions also has its own clear vision, mission and goals that can be directly be linked to the greater vision, mission and goals of UAE higher education federal system. The vision, mission and goals are communicated in university meetings, websites, annual catalogues, and strategic planning documents.

While in the American HE system, the vision, mission, and goals of public universities are usually established independent of federal and state directives and goals, at least indirectly; the vision, mission, and goals of the three public HE institutions in the UAE are directly linked to the vision, mission, and goals of the Ministry of Higher Education, and federal government directives. The vision, mission and goals are not reflective of each university needs and requirements; they are reflective of the need and requirements of a federal system where these universities are single actors. Each university is expected to play a specific role that serves the greater structure. This structure is more aligned with practices in the Middle East and other developing countries, not Western models.

Among the examined institutions, there are variations in terms of their vision, mission, goals, focus, and constituents. For example, UAEU is focused on undergraduate and graduate educational needs related to specific areas such as applied sciences and academic disciplines such as Medicine, and pharmaceuticals. ZU and HCT don't offer such programs. HCT is focused on technical program at the undergraduate level, including Technologies and communication. ZU is focused more on undergraduate education of areas related to Management and Arts and Sciences.

The three universities also differ in terms of the geographical areas they serve. UAEU is located in the state of AL-Ain. Students from outside the state live in campus housing during weekdays and return to their families in the weekend. HCT has campuses in almost every state. ZU has two campuses, one in Dubai and a second in Abu Dhabi. In many ways, the variation among the three institutions allows them to complement each other. Finally, as we stated before, the culture of the UAE played a role even in choosing the location of the universities. The state of AL-Ain was chosen for UAEU because of its location and the conservative nature of the people in that area of the UAE. Parents feel more comfortable sending their daughters to a state like AL-Ain versus Dubai for example. At the other end, ZU was established in Dubai, which is the most liberal part of the UAE. Introducing a new American model with English as the instruction language is better suited in a metropolitan city like Dubai, where many people including UAE nationals have been exposed to different cultures and are less-conservative.

University Faculty Profile

Field work results confirm that the federal higher education model in the UAE utilizes many faculty members from the North America and the West or those who have been educated in the West. Native English speakers and western educated faculty are constantly recruited. In most cases, it was found that many of the faculty that come to the UAE are either new entrants to higher education or retired seniors in their home country. For new entrants, the salary and benefit they receive in the UAE are lucrative in comparison to their home countries. For retired seniors, the UAE allows them a chance to share their experience with no restriction on retirement age. The contract used for all faculty is standardized, three-year renewable with benefits that include tax free salary, paid accommodation, children's education, and annual travel to their home country. Many faculty members request renewals after the first contract. Western faculty bring more than just instruction to UAE federal higher education, they bring their credentials, culture, language, ideas, values, way of thinking, and philosophies. This is a significant exchange that UAE national students enjoy during their undergraduate education. This element is more aligned with models in the West.

Among the examined institutions, the faculty profile varied somewhat. For example, UAEU utilized more UAE nationals and Arab nationals than HCT and ZU. UAEU offers several programs in Arabic, law, and Islamic Studies. ZU utilized more faculty from the US and Canada to support the university North American curricula, admission, and accreditation requirements. HCT's faculty profile included more males than females, mainly due to the technical nature of degrees offered. And while most faculty members in UAEU and ZU are terminal (have doctorates in their field of study), many HCT instructors are not terminal (don't have doctorates) since HCT is more oriented toward associate and bachelor degrees. The three examined institutions utilize full-time-faculty. HCT utilizes full-time and part time faculty because of the large number of campuses it has in the UAE, and the extended hour it offer in some locations for adult learners. The three examined institutions don't have a tenure system in place. They do have a promotion system in place. Although faculty evaluations are supposed to be based on teaching effectiveness, scholarly activities, and university service; teaching effectiveness takes great predominance.

University Student Profile

The field work results of this study confirm that federal higher education institutions in the UAE mainly admit UAE nationals, a large portion of which are females. Although initially federal higher education only admitted UAE nationals, limited numbers of international students are being admitted to federal institutions. This is not only an attempt to diversify federal education, but also to generate revenue and international recognition. Most students admitted are high school graduates. UAE national females have slightly higher admission requirements to UAE national males. This step was taken to encourage UAE national males to pursue high education instead of military positions that don't require higher education degrees. The campuses are gender-based, and UAE national female students are required to sign in and sign out when they arrive to and leave campus every day. All UAE nationals are Muslims. UAE religion and culture are observed in communication between a UAE national female and her male instructor. For example, no hand-shaking or off-topic conversations are expected. Communication should be conducted in class environment only, not outside classroom. Students are expected to observe traditional dress code when attending classes. Absence from classes are recorded and communicated to family as required. These practices are not aligned with the practices of the American model, especially those with regard to gender-indifference and national background. The student profile varied somewhat among the three institutions in terms of gender, location, and age group. For example, ZU offers undergraduate education to national females, in urban, more liberal populations (Dubai and Abu Dhabi), where many students have attended American schools (K-12), and would not have difficulty passing the English admission requirement. UAEU caters to students in the province of Al-Ain, and other states with more conservative population, and lower income students from distant emirates. The university caters to male and female students but in separate campuses. HCT has campuses in almost every emirate in the UAE, segregated campuses by gender, for students interested in mainly undergraduate level education; and while HCT, targets UAE adult learners and students that are already employed, UAEU and ZU's key focus is high school fresh graduates. Students admitted to UAEU usually have the higher high school GPAs than HCT and ZU.

University Administration and Systems Profile

Most university administrative units function in a similar fashion to universities in the West - inventory management, purchase requisitions, budget allocations, facility management, information technology, student admission, and student registration. Human resources function is somewhat different as it involves international recruitment, employee relocation, children's education, and visa and residency related requirements. The UAE federal higher education system utilizes the best breed of communication and learning and administration technology, including Sungard Banner and Blackboard learning management system. In many cases, systems experts are hired from North America to implement and manage these systems. Practices, such as advertisement and recruitment or budgeting and accounting are very similar to those of Western institutions and are conducted mainly in English. Arabic is used in communication with federal ministries and legal matters only. This characteristic is more aligned with higher education institutions in the West. This is an area where the examined institution were very similar. The administrative units functioned in a similar manner in accordance with the requirements and the by-laws of the ministry of higher education. There are current conversations about a centralized administration and support system, but that has not come to fruition as of yet.

University Funding Profile

All three examined institutions receive their full funding from the UAE government. The universities do not generate revenue from tuition fees (at the undergraduate level), from research, or other entrepreneurial activities. Millions of US dollars are allocated each year for higher education in the UAE. Universities are expected to submit their proposed budget to the ministry of finance, which in return approves or modifies the budget request in accordance with the instructions of the federal government and the Ministry of Higher Education. There is no current indication that this trend will change in the near future. Some of the interviewees viewed government funding as "the only way to stay focused on the key goals of federal higher education", while others reported that "government funding comes with a predefined set of rules that can be restrictive".

While many universities in the West use some government funding, it is not full funding, and they utilize other sources of funding. This characteristic aligns more with federal higher education institutions in developing countries and the Middle East. The examined institutions did not vary in terms of funding procedures. All three institutions are heavily if not completely reliant on the Ministry of Finance and Ministry of Higher Education for their funding. However, the annual allocations vary based on university size, students' population, number of faculty, strategic plans of each university, and agreements with the ministries. For example, ZU was allocated additional fund for the new campuses both in Dubai and Abu Dhabi in 2007 and 2011.

University Curricula and Teaching Profile

All three examined institutions use English as the instruction language with the exception of a few programs and courses that utilize Arabic as the language of instruction. In many cases, curricula have been developed by experts and faculty from the US. General education outcomes, program outcomes, and university outcomes have been established for each university. Assessment plans, annual evaluation, and strategic plans are also in place. Course syllabi, grading structure, assessment activities, and support resources are all established. In many cases, American textbooks are used as learning resources. Learning management systems and credentialed faculty member that support the educational process are also available. Zayed University is now accredited by the Middle States Commission on Higher Education in the US. Supporting documents exist in the universities' websites, internet, self-study reports, accreditation reports, and Blackboard system. While this characteristic seems to be more aligned with the culture of higher education institutions in the West, it is important to note some key differences. For example, textbooks that may disagree with or violate UAE religious, cultural, and political values are either not used or censored. For example, topics such as dating, sexuality, alcohol, royal and religious figures are not openly discussed. Textbooks are provided to students after editing. Students may not purchase textbooks from outside university premises. Teachers are caught up in what Findlow (2001) describes as the struggle between "ideals and pragmatics" (p. 51) as they do not want to present anything that conflicts with the tenets of Islam while at the same

time they need to acquaint students with the information they will need to help their countries compete in the global market. Among the examined institutions, the curricula is different, especially in terms of constituents and degrees offered. As we have stated before UAEU offers undergraduate and graduate degrees including Medicine, pharmaceuticals, and law. ZU offers degrees related to business and Arts. HCT is focused on technical program including Technologies and communication. The curricula in the case of ZU were mainly drafted to respond to accreditation goals of the university with the Middle States Association of Colleges in the US. UAEU's focus is national and government, while HCT's focus is enterprise. In its self-study for US accreditation, ZU emphasizes that the curricula is regularly examined against higher education best practices and international models of quality. Even in the annual catalogue, the university makes clear that programs have developed focused, program-specific objectives identified as Major Learning Outcomes. These outcomes are distributed across the major courses, culminating in the internship and capstone experiences. The colleges and departments build into their plans assessments of the learning outcomes for their majors and thus take ownership of major-specific and University-wide learning. On the other hand, UAEU places a strong emphasis on program-level international accreditation and benchmarking of professional programs. It also emphasized the role of research, especially government-sponsored research. The University has established research centers of strategic importance to the country and the region which are advancing knowledge in critical areas ranging from water resources to cancer treatments. UAEU is currently ranked the number one research university in the GCC, number two in the Arab World. HCT, has embarked on a "Learning by Doing" model as an educational approach where students gradually acquire essential knowledge and skills through active, self-reflective engagement with the world inside the classroom and beyond. HCT has also integrated the use of mobile learning technologies across many disciplines and faculties. HCT brands itself as an enterprise-friendly institution. HCT web sites states that all programs are designed in consultation with business and industry leaders to ensure that the skills students learn are job-relevant and to high standards. All three universities utilize face-to-face for instruction. Other instructional modalities are being slowly introduced. Learning management system such as Blackboard are available for faculty to use if they choose to design the course, most faculty don't participate.

University Research Profile

Until this point, more emphasis has been placed on teaching than research. Although the organizational structure of the three examined institutions include a unit that is concerned with research, the data collected throughout this study shows minimal activities. Other than the ZU annual research symposium, there appears to be no visible collaboration among the examined institution in research. Most research activities are conducted in isolation and are initiated by the self-motivation of the researcher; and in many cases using his/her own funding, time, and resources. The researchers believed that the annual symposium, started recently, where the three higher education institutions host other institutions and neighboring countries to attend and share some of their publications and ideas is a good place to start. Support is needed from MOHESR to take more serious steps in this direction. As one of the interviewees stated “if you want to maintain accreditation, you have to take research more seriously”. Although the key focus is on teaching right now, this element is not aligned with universities in the West, where research centers are found, where faculty are expected to conduct research and publish every year, where multiple sources for research funding are available, and where research is an integral part of the university’s agenda and goals. For the most part, federal universities in the UAE don’t have a clear research agenda. Research is largely left to the faculty preference and ability. Since faculty members are hired in temporary contract basis (3 years) and since the examined universities also don’t have an established promotion and tenure system, many faculty members don’t feel obligated to conduct and publish research. Not all UAE institutions offer Master and/or Ph.D. level programs that include research, external funding is not available in many cases. In the absence of all the above, most of the higher educational Institutes have to rely on their own generated funds, which do not suffice the requirement of all the researchers’ in these Institutes, as a result of which the quality and quantity of the research, that are produced, is not appreciable. This is another key area where the UAE newly adopted federal higher education model does not align with the imported American model.

At the institution level, UAEU has a research center and a research and sponsored projects office. Mini grants are available for faculty research. The university lists a number of national and international institutions in its web sites as research partners. ZU talks about three initiatives to improve research; the first is integrating research into faculty responsibilities in the colleges. Although there is no explicit requirement that faculty research address “the interests, needs, and concerns of the U.A.E. and the region,” a good deal of faculty work focuses on national issues specific to the country or to regional issues in Asia or Africa. The second strategy used to realize the University’s research mission is the Research Incentive Fund, a budget line of AED 1.2 million (US \$327,000) available to faculty on a competitive basis. The third strategy is to increase sponsored research at ZU. As part of that strategy, the University allocated start-up funding for three years to the Economic and Policy Research Unit (EPRU) with the expectation that it would be self-supporting after the start-up period. HCT has taken a more aggressive approach by partnering with business and industry to establish The Centre of Excellence for Applied Research & Training (CERT) as a commercial, research and training arm of the Higher Colleges of Technology (HCT). The CERT Group of Companies, which includes CERTSoft and CERT Info Track Telematics established the first Technology Park in the United Arab Emirates. It has acted as “the regional facilitator of the INCONET-GCC program (International Cooperation Network for Gulf Cooperation Countries) which sees 18 government and private research organizations, from Europe, the GCC and Yemen form the European Commission-funded project, where representatives will develop ways in which to promote bi-regional science and technology research partnerships and enhance interaction between the regions (CERT, 2012).

University Governance, Regulations, Bylaws, and Policies

This is probably the area where the UAE federal higher education system differs the most from universities in America. Federal universities in the UAE have one president, the Minister of Higher Education, who is also a member of the royal family. Each of the three examined institutions is headed by a UAE national vice president, appointed by the Minister of Higher Education.

It is a hierarchical, central authority with no faculty participation or real shared governance. Higher education institutions are not autonomous. Policies and bylaws are sourced from the ministry of higher education.

This characteristic does not align with the shared model of governing structure that exists in many higher education institutions in the US. As Molly Corbett Broad, president of the American Council on Education describe in his 2010 meeting with the Council of Europe state: “The US higher education model has three key features that allow US universities to enjoy greater institutional autonomy than their counterparts around the world; first, our federated system, in which the responsibility for public education is vested in the states. Because of this central feature of our Constitution, we have no national ministry of education that oversees colleges and universities; second, a quality assurance system that is based on voluntary, peer-review within the context of an institution’s particular mission and focused on academic quality and its improvement; third, our institutional governance, which features lay boards of trustees, appointed presidents rather than elected ones, and shared governance between the faculty, board, and administration”.

For the most part, the examined institutions did not vary in terms of governance and regulations. As previously mentioned, the governance system is established by the minister of higher education, who is also the president of all three universities. The regulations are established by the Ministry of Higher Education for academic and administrative aspects and the Ministry of Finance for budgetary and financial aspects. However, some of the by-laws are specific to each university. For example, because UAEU allows for students’ housing, the university has established by-laws specific to students’ living and accommodation in campus. ZU has unique by-laws specific to female students leaving the campus during instruction hours. However, when comparing the governance structure of the three institutions, it is evident that ZU has made more advances than HCT and UAUE in this area, mainly due to the accreditation requirements of the Middle States Association. In fact, the evaluation report of the accrediting agency indicates that Zayed University has a governance system in place that recognizes the separate roles of faculty, administration, governing board and other constituencies in the operation and advancement of the

institution. It also indicates that there is a structure of faculty governance in place, and that student involvement in University governance occurs through student membership on the Student Councils on the two campuses. It is important to note that faculty members don't have a senate representation and their voices are only heard through a small number of committees. The evaluators made a recommendation to continue to advance faculty governance in a fashion that recognizes Emirati traditions of consultations and furthers creation of an institutional culture of trust and commitment. While both UAEU and HCT are governed by a president, vice president, and a university council; no data was found regarding shared governance or the role of faculty and students in university governance.

University Cultural Profile

The cultural profile is another key characteristic where the UAE federal system does not align with universities in the West. For example, all universities are fenced with guards at each entrance. Entry is restricted to students and employees only. Universities use different campuses to accommodate for gender separation. Access to the internet is filtered and censored. Students use special badges to register arrival and departure time every day. Interaction between male professors and female students is mainly restricted to the classroom environment. Access to students' records may be granted to parents or spouse without the student's approval. Modest dress code is expected of both male and female students. Group transportation is provided for female students. While this may sound strange to someone who is not familiar with the culture of the UAE, families in the UAE expect all the above from the government as part of protecting and preserving female students while they are away from their families and homes. Students in the UAE live with their families usually until they finish their undergraduate education, secure employment, and get married.

The cultural significance of the federal higher education system in the UAE has been immense, especially for women. The UAE has shifted from a society that viewed women only in the role of motherhood to a role that view woman as an equal partner in the nation's economic development.

However, at the same token, the federal higher education system is still used to emphasize the retention of traditional values of the UAE society. And while globalization of higher education in the UAE has played a role in educating women, advancing their role in society, and granting them more rights; UAE women are very different from Westerners. For example, female students don't consider living away from home on campus, unless it is a female-only campus. Many UAE women still believe that their primary role in life and society is motherhood not work. The dress code of female students is traditional garment and head cover. Education is viewed by traditional parents, as an acceptable reason for daughters to be outside the home, whereas employment has yet to become generally acceptable (Abdulla, 2005). Even in terms of admission requirements, the UAE higher education system uses different admission requirements based on gender and nationality. Globalization of higher education is a multidimensional and that while the formation of the UAE higher education system has been shaped to a large extent by the globalization forces; the outcome for UAE students represents a very different context and experience from the West (Tikly, 2001).

In terms of governance, the UAE higher education system certainly followed the path of developing countries generally in offering open-access, free higher education to all those who completed secondary level high school; the federal higher education institutions in the UAE don't exercise the same degree of autonomy of higher education institutions in the West. Findlow (2000) speaks to the use of the UAE higher education system as a political tool rather than an independent, democratic system. Federal universities are not governed through shared governance (e.g. faculty senates, etc.), they are governed by a central authority represented by the university president and the ministry of higher education. Their mission and objectives stem more from the government need than their own. As McCaleb (2005) suggest, the more recent development of the UAE higher education system may be more similar to successful East Asian states than the West.

Although the UAE cultural element was strong among the examined institutions, there were some slight variations. For example, students populations in rural areas were more conservative and observant of UAE culture than those in urban areas.

Many of the students that join ZU have been more exposed to Western education in their k-12 years; they live in multi-cultural metropolitan cities like Dubai and Abu Dhabi, and they are more tolerant of Western culture and values. Many of ZU (female student) drive their own cars to the campus every day. They use English as their primary instruction and communication language. The university has a university exchange programs where students can travel to Europe, North America, and Australia in groups with a chaperone to interact with other cultures. Textbooks used include case studies and materials relevant to the US and the West rather than the UAE and the Middle East. This is different in the case of UAEU and HCT, where students come from remote areas to live in university housing. Most students come from an Arabic-based k-12 education and a culture that is less exposed to Western values. Perhaps, the UAE is similar to Japan in this element. As Jacques (2005) noted in relation to Japan "western values are not necessarily universal".

Given all the above, it is the researcher's conclusion that current federal UAE higher education model is similar to the US model in three areas: some aspects of curricula, faculty profile, and administration and systems. The UAE system differs from that of the US in terms of governance, culture, research, funding sources, and vision, mission and goals. This system emerged as a result of a number of factors, some of which include the failure of the old Egyptian-like system to respond to the needs of the UAE, the realization that oil is a finite source and that the UAE needs to strengthen itself as a nation, Emiritization and national employment, the need to decrease dependency on foreign labor, and a new global knowledge economy that requires global knowledge and skills. The new federal higher education model of the UAE, although young and still in need of more time to mature, has proven to be successful in many ways. Several surrounding countries are now starting to adopt similar steps to that of the UAE to improve their higher education systems. Qatar and Saudi Arabia specifically have been in the forefront of that effort. Students from surrounding countries are now joining universities in the UAE instead of travelling to the US or the UK to receive their education. However, there are also areas for further improvement particularly in relation to more innovation in the classroom and more appropriate governance.

Now that I have presented my discussion for the first research question using the main themes of this study, I now have the prerequisite information needed to respond to the second research question of this study

2. Using the lenses of World Polity, to what degree have the UAE federal higher education institutions drawn on the global American model, particularly in relation to staffing, student constituency, funding, curriculum development and pedagogical strategies, and governance and policies?

It is evident from the data collected throughout this study that the federal higher education system of the UAE draws mainly from the North American model of higher education, more specifically in terms of instruction language, some aspects of curricula and aspects of pedagogy. There are other elements in the federal UAE higher education model that are drawn from and perhaps necessitated by the surrounding political, economic, and cultural environments. A key feature of the world polity theory is that the enactment of global models creates considerable institutional similarities among differently situated states (Meyer, et al, 1997). This key feature is obvious in the case of the federal higher education model in the UAE. This is an example of voluntary association with the standards, policies, and knowledge of the American higher education system. Although within two different countries (US and UAE), the world society ideology directly licenses a variety of organized interests and functions (Meyer, et al, 1997). While the US and the UAE differ in their level of development, several aspects of the higher education system look quite similar. This conformity reflects the existence of a common global higher education culture. These similar aspects of higher education were not mandated by the government of the US, but communicated, and governed by the culture and norm of a global higher education exchange. The world Polity of higher education has played a key role in sustaining and promulgating a common culture to nations around the world, in our case to the UAE. This worldwide American model of higher education is being partially and sometimes fully used in other countries to define what is appropriate for higher education institutions in terms of goals, curricula, policies, etc. A clear example of the World Polity in this case study is the accreditation status of ZU by the Middle State Association of Colleges and

Universities in the USA. This example clearly illustrates that higher education regardless of the country is viewed as a global institution.

The higher education institution in our scenario links the USA and the UAE higher education activity, roles, and organization to a universal and unified core. It also defines categories of certified persons as carrying these linkages, and as possessing the relevant capacity to carry out their roles. This supports the findings of Meyer, et al (2006) that higher education not only expands but it also is increasingly standardized around the world and while communities and states may vary in terms of resources and traditions, universities nevertheless grow more similar with respect to goals and programs for meeting these goals. As evidenced in this study, university curricula change in a similar direction across higher education. Even in the case of the UAE, which is considered to be a conservative Arabic and Islamic country where profound cultural, religious, and organizational differences reflecting local and national (path dependencies) may be found, they are undercut by transnational higher education standardization (Teichler 2002; Lenhardt 2005; Kruecken and Meier 2006).

The four main "elements of collective world society" exist: international governmental organizations, the Middle States of Colleges and Schools; nation-states, the UAE, which engage in copying that leads to diffusion; voluntary associations, seen in accreditation, outcome assessment, curriculum and instruction; and scientists and professionals, faculty and higher education experts whose own authority derives from world-cultural principles" (Meyer et al. 1997).

However, indigenous values, history and culture can still be seen to play a part in every day's student's life, especially in terms of gender-indifference and governance structure. For example, campuses are still segregated and fenced, admission criteria vary based on gender, female students are subject to different attendance procedures, faculty members do not enjoy shared governance or tenure process. In addition, curricula is censored for topics that may be deemed offensive to the culture and religion of the UAE people, access to the Internet and some of the social media applications (e.g. Skype) is filtered or not authorized. In UAE, university autonomy

is in question, not only with regard to students, but also with regard to professors, and social and political issues (Godwin, 2006).

In conclusion, World Polity was applicable in explaining two things in the case of the UAE federal higher education system: the first is why a developing nation such as the UAE decided to adopt a university system as soon as it was independent; and second is the transformation of many elements of that federal university system from an Egyptian-based model back in the 1970s, which was the dominant model in the region, to the global American model now. The fact that the new federal higher education model in the UAE does not fully conform to the American model in its entirety is an indication that the UAE model was adapted to meet the local cultural conditions. This transformation of culture does not happen overnight. Given the recent adoption of this model, many of these local elements may change over time (Boli, 2014).

In conclusion, I can say that World Polity frameworks were very useful in helping me frame the research question of this study, not only to show the similarities between the new federal higher education model in the UAE and the North American mode, but also to illustrate the any possible contrast between the two models. However, this study has also revealed that that the world polity assumption of smooth transfer of norms to the global actors is not always plausible, especially within a rapid-changing economy and higher education environment. I also agree with the notion that World Polity should pay more attention to historical path-dependence, as it could explain varying modes of higher education adaptations within varying local contexts, especially in developing countries (Finnemore, 1996).

8.3 Summary and Conclusion

Globalization of higher education in the UAE was inevitable. The discovery of oil triggered rapid industrial, economic, and educational development (Nydell, 2002). The outnumbered population of the UAE coupled with poor-performing higher education in the 1970s and 1980s did not allow the UAE to meet the growing demands of a global economy (Gill, 2008).

This study discussed the emergence of an American-like federal higher education model in the UAE replacing an antiquated Arabic-Egyptian higher education model that existed between the 1970s and 1990s. The study discussed how global higher education in the 1990s led the UAE government to seek a new direction in federal higher education; a direction that can respond to the nation's strategic needs in terms of nationalization and empowerment of UAE nationals, as well as responding to the global knowledge economy.

This study examines the global reach of higher education ideas and values into challenging, non-Western environments. The research investigates various issues related to higher education development, including the socio-cultural and organizational aspects of it. The research questions were not only significant to the UAE but they also address key issues that are especially sensitive yet similarly applicable across the Gulf region and similar developing countries. This research was an exploratory study aiming to investigate the key characteristics of the federal higher education model in the UAE and the reasons for its emergence. While I recognize that cultures, resources, and technical environments vary significantly, and thus no single practice is described to work everywhere, the results of the study provide contributions for both the research community and to practitioners. While some of the insights might sound familiar, their recurrence illustrates the importance of incorporating them into the collective thinking of higher education management.

To answer the first research question – what are the main characteristics of the current federal UAE higher education model and what is the rationale behind its emergence? - the data collected throughout this study reveals that the current federal higher education system in the UAE is a unique “glocalized” or “hybridized” Emirati model that is based on the US model of higher education. The model uses North America curricula, instruction language, faculty and staff, while retaining a more traditional “Emirati” governance structure, policies and culture. The UAE federal higher education model can be characterized as encompassing both elements of a Western model as well as traditional socio-cultural elements.

The current system of public education is conducted in single gender classes and few expatriates. The mere existence of such a higher education system is an indication that higher education is globally viewed as a global institution where standards, policies and practices may be freely imported, adjusted, and utilized; and where accreditation status in one nation may be sought by another nation without government mandates or constraints.

This model emerged and was shaped in response to a number of factors that include globalization factors, national factors, and cultural factors. The UAE government decided to build a modern educational system, because education is the foundation to build a prosperous, modern nation. The UAE higher education model emerged as a result of solid belief that education and nation-building go hand in hand, and that higher education should be relevant to national human capital planning and institutional development. In a rich-developing country with little scarce local expertise, the obvious answer was the utilization of Western models and the expertise of Western academics. In addition to the global factors mentioned above, there were other local factors that have influenced the formation of the new higher education model, including “Emiritization” or nationalization of the UAE labor force, the large reliance of the UAE on foreign expatriates, the need to preserve the UAE identity, and the failure of the previous Egyptian-based higher education model to meet the national and global needs of the UAE. while at the start the UAE nation-state identity was a central aim for the UAE national higher education system, the new global pressures and the country’s quest for modernization and human capital development resulted in the introduction of Western models of higher education, and has also reflected on the country’s tolerance towards a globally-oriented economy.

For the second research question, using the lenses of World Polity, to what degree have the UAE federal higher education institutions drawn on the global American model, particularly in relation to staffing, student constituency, funding, curriculum development and pedagogical strategies, and governance and policies? - it is evident from the data collected throughout this study that the federal higher education system of the UAE draws from the North American model of higher education, more specifically in terms of instruction language, curricula and pedagogy, and

instructor profile. There are other elements in the federal UAE higher education model that are drawn from and perhaps necessitated by the surrounding political, economic, and cultural environments, such as the cultural profile, student profile, governance profile, and funding profile. The findings also reveal that, the profound cultural and religious differences reflecting local and national path dependencies are undercut by dominant western models of higher education. While the US and the UAE differ in their level of development, several aspects of the higher education model look quite similar. These similar aspects were not mandated, but communicated, and governed by the culture of a global higher education exchange. The world Polity of higher education has played a key role in sustaining and promulgating a common culture to nations around the world.

A key feature of the Polity Theory is that the enactment of global models creates considerable institutional similarities among differently situated states. This key feature is obvious in some areas in the case of the UAE, but not all. In areas such as curricula, the example of voluntary association with the standards, policies, and knowledge of the American higher education system is evident. Although within two different states, the world society ideology directly licenses a variety of organized interests and functions. While the US and the UAE differ in their level of development, some aspects of the higher education system look quite similar. These similar aspects of higher education were not mandated by the government of the US, but communicated, and governed by the culture and norm of a global higher education exchange. It is important to note that complete conformity is not expected. In fact; one of the short comings of sociology of education is the researcher tendency to conceptualize over homogenous higher education institutions (Naidoo, 2003). As Lechner (2001) argues, enacting global models don't necessarily lead to homogenous world. The different conditions in different nations will lead to different initializations. A clear example is the accreditation status granted by the Middle State Association of Colleges and Universities in the USA. This example clearly illustrates that international organizations have become a major player in education policies. The higher education institution in our scenario links the USA and the UAE higher education activity, roles, and organization to a universal and unified core. It also defines categories of certified persons as carrying these linkages, and as possessing the relevant capacity to carry out their roles.

The fact that the UAE decided to adopt a university system that reflect the global models with the belief that this higher education system will eventually assist with national development, economic growth, and national security is a sign of World polity (Boli, 2014). In addition, we may also have a case of mimesis, in which “weaker actors copy the models of strong actors, often the very strongest and most successful at any particular time” (Boli, 2014). As a result, we have a two-fold process; the first is the UAE in world-cultural enactment and second is the UAE engaging in organizational mimesis, which is probably better explained under neoinstitutionalism. The American model has been adapted to meet the local, political, and cultural needs of the UAE with some elements of the American model being adopted but others being omitted, neglected, or even reversed.

The researcher would finally like to comment on her own personal journey on the DBA (HEM) and how this has led to the development of her own professional skills. Since the beginning of her studies five years ago, she has been introduced to and exposed to individuals, concepts, and topics that were all new to her at the time. She shared the learning experience of many successful individuals in the DBA and has learned so many things about higher education in their home countries and work environments. This learning experience, in addition to the tools she was given during her studies, has enabled her to approach this research study with a much larger perspective, and with a more open mind. This study is concerned with World Polity theories of higher education, and if the researcher has learned anything about the polity of higher education, she has learned that it all starts with sharing. She hopes that her research study will benefit others in advancing the global world of higher education; which in her view has been instrumental in the advancement of humans.

8.4 Limitation of the Study

The context of this study is a single country, the UAE, and a single sector of higher education, federal higher education. While higher education systems and issues in other developing countries have much in common with the UAE, they also exhibit differences in the priority given to different levels of education, the degree of education reform, the size of their population, and the policies and structure of their education systems. This study focuses on federal higher education transformation undertaken by the Ministry of Higher Education and Research in the UAE. The findings may also be limited by the relatively time span of the study, by the people interviewed, and by the data collection instruments limitations. This study could be seen as having limitations in terms of the use of the case study format which provides a snapshot of an organization in time and thus, of necessity, provides a "freeze frame" of information (Bryman, 1989; Creswell, 1998).

Given the dynamism of the UAE, and the higher education environment in the UAE, it was inevitable that the three higher education institutions that existed at the beginning of this study in 2007 would already be evolving as the study came to a close. Although it could be suggested that a longitudinal study would perhaps be the best methodology to test the theoretical framework for this study, it would have not been a practical approach given the purposes of a doctoral thesis, and although one can recognize that as the environment evolves, perceptions may evolve as well, the case study approach has definitely allowed this research a snapshot of how those federal higher education institution looked at that time. Another possible limitation of this study is that it is limited to the context of a uniquely characterized developing country, which is the UAE. The UAE is considered an oil rich country with a small population, and reserved religious and cultural aspects. Because of this, the UAE is able to invest in building new campuses, establishing infrastructures, and attracting faculty and other expertise from North America and Europe. Finally, this study was the lack of available documented data in the UAE, and the fear of some participants to freely express their opinion in case of possible retributions. The UAE is only forty years old from independence, and has just entered the global world of higher education less than a decade ago.

Many of the practices, policies, standards, and guidelines that were used in the 1970s and 1980s were not easily found, and in some cases not documented altogether. The researcher has strived to remain impartial and uninfluenced by previous knowledge and experience. However, it is acknowledged that these are influences and biases that covertly apply to research. These are the result of an individual's socialization and work experience. This study does yield some interesting "lessons learned" about the impact of globalization on education reform. However, there is no guarantee the findings and conclusions of this case study are transferable to another context or country.

8.5 Recommendations and Areas of Future Research

Like higher education systems around the world, the UAE system need to continue to be able to respond to the UAE local needs while maintaining global competitiveness. In doing so, the researcher believe that the federal higher education institutions in the UAE can improve their practices by doing the following:

- Provide federal higher education institutions with more autonomy. University autonomy creates conditions for the freedom of thought and is perceived as an expression of democracy in society. Universities should be enabled to create their own vision, mission, and goals, and align their degrees and curricula to help them achieve those goals. At a time when the internet, television and the growing cosmopolitanism of the region expose students to culturally sensitive issues outside of the classroom every day, the persistence of a censorial approach in curricula design and teaching in higher education is not of interest for all those involved.
- Establish a research agenda specific to the strategic direction of each university, and more fully take the account of the implications for policy and practices for developing innovation and research. Some of the immediate steps that can help rectify this problem are: a) for the UAE federal higher education to established guideline for research and community services; b) allow more institutes in to offer Master and/or Ph.D. level programs that

include research, and c) allow for external funding. In the absence of all the above, most of the higher educational Institutes have to rely on their own generated funds, which do not suffice the requirement of all the researchers' in these Institutes, as a result of which the quality and quantity of the research, that are produced, is not appreciable.

- Examine current governance structure to allow bottom-up participation and some forms of decentralization and shared governance. This will assist with creativity, innovation, and knowledge management in general.
- Revise and align the current k-12 Arabic-based, federal education system with the new model of higher education
- Diversify funding sources for each university. Allow universities to charge competitive tuition fees and allow them to truly compete for students among each other and other private higher education institution. Competition should be based on several factors, including quality, not only free-tuition.
- Establish a hiring, and promotion and tenure system that would allow faculty to invest more time, energy, and research in long term goals.
- Establish accreditation standards for the new models specific to the needs and objectives of the UAE
- Allow for more collaboration among federal higher education institutions, especially in terms of administrative structure
- Investigate the possibilities of other instructional modalities such as online instruction to attract adult learners to higher education.
- Admit a larger number of non-UAE nationals. That would allow for increased revenue and a more-diversified student body
- Establish stronger connections with the enterprise community, especially in terms of research collaboration and internships
- Offer academic programs that would help the private sector increase the use of UAE nationals

In terms of areas of future research; very little information is available about the current status of private higher education in the UAE.

The knowledge gained from conducting this research can be further developed and expanded to deal with many other perspectives including possible coordination among higher education institutions in the UAE. The study is anticipated to lead to a more coordinated higher education system in the UAE that can serve the different constituents in the country, and allow the different higher education institutions in the country to benchmark and improve their standards, policies, and higher education management as a whole. Although more and more institutions are now holding themselves to common standards and practices, the researcher believes that more studies concerning accreditation standards should be created and maintained by the Ministry of Higher Education in the UAE, not only for federal higher education institutions in the UAE but also for private higher education institutions, and higher education institutions operating satellite campuses in the UAE.

Appendix A: Interview Guide

Exploring the UAE Federal Higher Education Model Interview Guide

- 1. What is the vision of the federal higher education system in the U.A.E?**
- 2. What is the vision of the university, and how does it relate the vision of the federal higher education system in the U.A.E?**
- 3. What steps have been taken by the university to implement these visions?**
- 4. Does the university follow a specific Higher Education model, and why was that model chosen? Has this higher education model proven successful in federal higher education in the UAE, and why?**
- 5. What is the university mission and goals? How were they constructed? And why were they chosen over other mission goals? How are the university mission and goals related to the federal higher education system mission and goals?**
- 6. How would you describe the university's faculty profile? What is the university strategy behind selecting this specific faculty profile? And how does this faculty profile help in achieving the goals and the mission of the university? Is the faculty profile mandated by the federal higher education system in the UAE?**
- 7. How would you describe the university's students' profile? What is the university's strategy behind this students' profile, and how does it assist the university in achieving its vision, mission, and goals? Is the university profile in the university similar to other federal higher education institutions in the UAE?**
- 8. What higher education information technology systems are being used by the university to serve its administrative and students' needs? And why and how were these system chosen? Are these systems being used in other federal higher education institutions?**
- 9. Where does the university receive its funding from? And how much influence do funding forms play on university's policies and decisions? Do all federal higher education institutions use similar funding forms?**

10. **Who decided the university curricula profile, and how is it constructed?
Is it part of the UAE federal higher education system?**
11. **What factors influence the university's research profile and activities?
Do federal higher education institutions collaborate in research activities?**
12. **How would you describe the university's organizational structure and governance system? What factors are behind this organizational and governance structure? Is the same system used in all federal higher education institutions?**
13. **Does the university have its own by-laws and policies? If so, what factors were behind these by-laws and policies? And how'd you relate these by-laws and policies to the by-laws and policies of federal higher education in the UAE?**
14. **How would you describe the university cultural profile? Does the university promote specific culture(s)? And why? Is this mandated by the federal higher education system in the UAE? If not, what reasons are behind the cultural profile? And what are the goals behind it?**

Appendix B: Questionnaire Guide



DBA Thesis- Questionnaire

**EXPLORING THE UAE FEDERAL HIGHER
EDUCATION MODEL:**

A case study research

By

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Maytha.alali@gmail.com**

**DBA in Higher Education Management program
Supervisor: Dr. Rajani Naidoo
The DBA(HEM) Director of Studies**

Thank you in advance for agreeing to participate in this study which is taking place during the year of 2010. This form outlines the purposes of the study and provides a

description of your involvement and rights as a participant. Ethical approval from the University of Bath to conduct this study has been obtained.

The purpose of this DBA research study is to explore the federal higher education system in the UAE. Please feel free to contact me with any questions or comments you might have. Your suggestions and concerns are important to me; please contact me at any time at the address listed above.

I guarantee that the following conditions will be met:

- 1) Your real name will not be used at any point of information collection, or in the written report unless you choose to reveal it in the profile section.
- 2) Classified information collected through the study will not be used for any purpose other than to do this study.
- 3) Your participation in this research is voluntary; you have the right to withdraw at any point of the study, for any reason, and without any prejudice, and the information collected and records and reports written will be either destroyed or turned over to you.

Please answer the following questions as thoroughly as possible. You may type 'NA' to answer any questions that does not apply to you. To mark a check box, simply, click on the appropriate check box once where it applies. You may choose to check more than one check box where appropriate. If you wish to uncheck a checked box, please click on it once again. Use additional sheets if necessary. Once complete, please email at: Maytha.alali@gmail.com

1. University's Culture & Environment

- 1. What are the business goals of your university?**

- 1.A Provide under graduate taught courses in different subject disciplines
☐
- 1.B Provide post graduate taught courses in different subject disciplines
☐
- 1.C Provide a Doctoral Programs on a part-time and full-time basis
☐
- 1.D Provide CPD (Continuous Program Development) training and courses
☐
- 1.E Deliver (engage into) blended (e-Learning) modes of program delivery
☐
- 1.F Work closely with industry on enterprise, research and development projects
☐
- 1.G Conduct state of the art applied and fundamental research
☐
- 1.H Shape the research and education agenda of funding councils and government
☐
- 1.I Other, please specify:

2. Does your university offer online courses and services?

- | | |
|---|--------------------------|
| 2.A Online Courses | <input type="checkbox"/> |
| 2.B Online application and registration | <input type="checkbox"/> |
| 2.C Online Tuition and other fee payment | <input type="checkbox"/> |
| 2.D Internet, Intranet, Extranet services | <input type="checkbox"/> |
| 2.E Other, please specify: | |
| 2.F – None | <input type="checkbox"/> |

3. Has the vision and mission of your university been communicated to you?

Yes ☐/ No ☐

Please give details:

4. Do you think the vision and mission of your university relates to the vision and mission of the federal higher education system in the UAE? Why?

Yes ☐/ No ☐

Please give details:

5. Are your university policies subject to oversight or review by another organization such as the ministry of education?

Yes ☐/ No ☐

Does that oversight authority require specific policies?

Yes ☐/

No ☐

Please comment:

12. A Arabic	12.B English	12. C French	12.D Urdu	12. E Hybrid	12.F Other
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Comment:

13. Why did you join this university? (Students Only)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.A Cost Factor	13.B Academic Quality	13.C Location	13.D GPA	13.E Family and Friends	13.F Other

Comment:

14. Why did you join this university? (Faculty Only)

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.A Salary and Benefits	14.B Academic Quality	14.C Location	14.D Career	14.E Experience	14.F Other

Comment:

15. How'd you describe the faculty profile in your university?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.A Emiratis	15.B Americans	15.C Europeans	15.D Arabs	15.E Hybrid	15.F Other

Comment:

16. Do you think the current faculty profile of your university defines its higher education model? Why?

Yes ☐/ No ☐

Please comment:

17. How'd you describe the students' profile in your university?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.A Emirati	17.B American	17.C Europeans	17.D Arabs	17.E Hybrid	17.F Other

Comment:

18. Do you think the current students' profile of your university defines its higher education model? Why?

Yes ☐/ No ☐

Please comment:

19. Who do you think decided the university curricula ?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.A Ministry of HE	19.B Accrediting Agencies	19.C Deans	19.D Faculty	19.E Hybrid	19.F Other

Comment:

20. Does your university support research activities? Why?Yes ☐/ No ☐

Please comment:

21. Who decided university's policies and bylaws?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.A The Ministry of HE	21.B The University President	21.C University Committee	21.D Deans and Faculty	21.E Hybrid	21.F Other

22. Is your university accredited in the UAE?Yes ☐/ No ☐

Please comment:

23. Is your university accredited outside the UAE?Yes ☐/ No ☐

Please comment:

24. Was your decision to join this university heavily dependent on the university's accreditation status in the UAE?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.A Strongly agree	24.B Agree	24.C Neutral	24.D Disagree	24.E Strongly Disagree

25. Was your decision to join this university heavily dependent on the university's accreditation status outside the UAE?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.A Strongly agree	25.B Agree	25.C Neutral	25.D Disagree	25.E Strongly Disagree

26. Does your university have any partnership programs with other higher education institutions in the UAE?

Yes ☐/ No ☐

Please comment:

27. Does your university have any partnership programs with other higher education institutions outside the UAE?

Yes ☐/ No ☐

Please comment:

28. Does your university have any partnership programs with industry firms in the UAE?

Yes ☐/ No ☐

Please comment:

29. Does your university have any partnership programs with industry firms outside the UAE?

Yes ☐/ No ☐

Please comment:

30. Does your university use information technology for:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.A Registration	30.B Course Management	30.C Learning and Instruction	30.D Administration	30.E Does not use IT

31. What is the language used by the university's information technology systems

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31.A Mainly English	31.B Mainly Arabic	31.C Equally English and Arabic	31.D Other Language	31.E Does not use IT

32. Do students pay tuition fees similar to those of private higher education institutions in the UAE?

Yes ☐/ No ☐

Please comment:

33. Do students pay tuition fees similar to those of higher education institutions in the US or the UK?

Yes ☐/ No ☐

Please comment:

34. Where does the university receive its funding from?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.A Students	34.B Research	34.C UAE Government	34.D Other Governments	34.E Don't know

35. From a cultural perspective, the university represent the culture of?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.A UAE	35.B US	35.C UK	35.D Hybrid	35.E Don't know

Please comment:

This list of questionnaire has been collected and compiled from different resources including vendor(s) and journals web-sites and publishing. If you have any comments, please attach a separate sheet with your comments.

User Profile (Optional)

Name:

University:

Job Title:

Age Range (Please check one):			
18-24 <input type="checkbox"/>	25-34 <input type="checkbox"/>	35-45 <input type="checkbox"/>	Over 45 <input type="checkbox"/>

Sex (Please check one):	
Male <input type="checkbox"/>	Female <input type="checkbox"/>

Thank you

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